



RESOURCE AND PATIENT MANAGEMENT SYSTEM

PCC+ Encounter Form & Health Summary Package (VEN)

Installation Guide and Release Notes

Version 1.2

June 2002

Revision 001

Information Technology Support Center
Division of Information Resources
Albuquerque, New Mexico

PREFACE

This manual contains the installation guide for the PCC+ Encounter Form and Health Summary Package (VEN) version 1.2. User and technical manuals are also provided with this installation package.

TABLE OF CONTENTS

1.0	RELEASE NOTES	1-1
2.0	INSTALLATION GUIDE CORRECTIONS	2-1
3.0	INSTALLATION NOTES.....	3-1
3.1	General Information	3-1
3.2	Contents of Distribution.....	3-1
3.2.1	Group I	3-1
3.2.2	Group IIa (Version Upgrade Only).....	3-2
3.2.3	Group IIb (Virgin Installation)	3-2
3.2.4	Group III	3-7
3.3	Requirements	3-7
4.0	INSTALLATION OVERVIEW	4-1
5.0	UPGRADE VERSION 1.1 TO VERSION 1.2.....	5-1
5.1	Installing New PCC+ Routines and Inits	5-1
5.2	Installing Print Service Version 1.4	5-3
5.2.1	Import and Unzip the New Print Service	5-3
5.2.2	Make Sure PCC+ Is Shut Down.....	5-4
5.2.3	Stop the PCC+ Print Service.....	5-4
5.2.4	Save the Existing Print Group Database File	5-6
5.2.5	Install the New PCC+ Print Service.....	5-6
5.2.6	Restart the Print Service	5-7
5.2.7	Restart PCC+	5-7
6.0	VIRGIN INSTALLATION OF PCC+	6-1
6.1	Installing the PCC+ Print Server and Applications	6-1
6.1.1	Install Windows 2000® and Microsoft Office 2000®	6-3
6.1.2	Configure Word	6-9
6.1.3	Copy Applications to the Desktop	6-9
6.1.4	Install Connectivity Applications	6-10
6.1.5	Install the PCC+ Print Service.....	6-20
6.1.6	Configure the Windows Desktop	6-22
6.1.7	Add Printers to Network	6-23
6.2	Configuring the PCC+ Print Service.....	6-29
6.2.1	Special Instructions for Novel NetWare Users	6-30
6.2.2	Define Print Groups.....	6-32
6.2.3	Add Print Groups.....	6-32
6.2.4	Assign Users	6-33
6.2.5	Create PCC+ Directories.....	6-34
6.2.6	Install Encounter Form And Health Summary Templates	6-34
6.2.7	Generate Descriptor Files	6-35
6.2.8	Add IP Addresses to the FTP Client.....	6-36
6.3	Performing Clinical Data Preparations	6-37
6.3.1	Create a Facility Short Name	6-37

6.3.2	Name the PCC+ Clinics	6-37
6.3.3	Name the Generic Provider.....	6-38
6.3.4	Identify Demo Patients	6-40
6.3.5	Determine Health Summary Types	6-40
6.4	Installing PCC+ On The RPMS Server	6-40
6.4.1	Load Routines and Globals	6-40
6.4.2	Add Generic Users.....	6-43
6.5	Configuring the RPMS Server.....	6-44
6.5.1	Create Secure PCC+ Directories	6-44
6.5.2	Assign Keys and Menu Options	6-45
6.5.3	Add/Edit Print Groups	6-48
6.5.4	Edit the PCC+ Configuration File	6-48
6.5.5	Add/Edit Encounter Forms (Templates)	6-51
6.5.6	Add/Edit PCC+ Clinics	6-55
6.6	Define User and Site Preferences	6-57
6.7	Test, Start, and Troubleshoot	6-57
6.7.1	Validate PCC+	6-57
6.7.2	Test PCC+ Check In Process	6-58
6.7.3	Check the Print Server	6-59
6.7.4	Test the Print Daemon	6-67
6.7.5	Going Live	6-67
6.7.6	Final Suggestions.....	6-68
7.0	CONTACT INFORMATION.....	7-1

1.0 Release Notes

The PCC+ Encounter Form and Health Summary Package (VEN) enables end users to design highly customized encounter forms and health summaries. These documents are generated locally on a laser printer before each clinic visit and fully replace their traditional PCC counterparts. The new encounter forms combine features of the standard PCC encounter form, super bill, and health summary. Customized elements of the form come from the PCC database (demographic information, eligibility data, problems, purposes of visit, allergies, health maintenance reminders, and medications), the site preference files (orderables and associated CPT codes), and the user preference file (diagnoses and associated ICD9 codes).

The new release of PCC+ version 1.2 was developed to make it easier to manage the system. Most of the changes were geared toward site managers and technical support personnel. End users will probably not notice any differences other than improved reliability. Version 1.2 has two objectives:

1. Fix bugs/problems reported in version 1.1
2. Provide a new set of utilities to configure and maintain the system

All of the new fixes and features are described in detail in the technical manual.

2.0 Installation Guide Corrections

#	Page/ Section	Text	Has Been Changed To	Date Changed
1	Page 5-1	“If you are doing a virgin install of PCC+, proceed to section 3.2. If you are upgrading from version 1.1, proceed as follows.”	“If you are doing a virgin install of PCC+, proceed to section 5.0. If you are upgrading from version 1.1, proceed as follows.”	4/18/02
2	Section 6.4.1	All references to 69 restored routines	70 restored routines	4/18/02
3	Section 6.5.2	If you are using the IHS Scheduling package, assign the VENZSCH key to all clerks who will be using the Scheduling package check-in process to generate PCC+ forms.	If you are using the IHS Scheduling package, assign the VENZSCH key to all clerks who will be using the Scheduling package check-in process to generate PCC+ forms. Assign the SDZPCC key to the site manager responsible for setting up the scheduling clinic for PCC+.	6/25/02

3.0 Installation Notes

PREFIX: VEN

CURRENT VERSION: 1.2

***** NOTE ***** NOTE *****

READ ENTIRE NOTES FILE PRIOR TO ATTEMPTING ANY INSTALLATION.

***** NOTE ***** NOTE *****

3.1 General Information

The New Encounter Form and Health Summary package, also known as PCC+, is unique in a variety of ways. From a technical perspective, most of the actual computing is done outside of the M/PCC environment. The installation itself takes place on two servers: the traditional RPMS server and a new Windows print server. In addition, PCC+ involves more user tailoring than any other PCC package by far. Consequently, the installation process is more time consuming, complex, and diverse than typically seen with other RPMS packages.

Follow the installation instructions precisely to successfully install the package. Plan on spending at least two full days for initial installation and testing. If you are doing an upgrade or a virgin installation using pre-configured print servers, the installation should take less than one day. The RPMS system does not have to be shut down to install this package. If you have problems or questions, contact the ITSC Help Desk for assistance.

3.2 Contents of Distribution

PCC+ version 1.2 is distributed as four groups of files.

3.2.1 Group I

Files in Group I are used for RPMS virgin installs and upgrades. These files are to be installed on the RPMS server. They include M routines and M globals that are restored into the production directories. Group I also includes text files that are to be placed in certain directories (UNIX systems) or folders (NT systems) of the RPMS server. Group I will be distributed in the file ven12g1.zip to NT systems or file ven12g1.gz to UNIX systems.

- | | |
|----------------|---------------------------------|
| • ven_0120.r | Routines and inits |
| • ven_0120.g | Globals |
| • efheader.txt | RPMS encounter form header file |

- hsheader.txt RPMS health summary header file
- hold.hld Placeholder file

3.2.2 Group IIa (Version Upgrade Only)

The files in Group IIa are to be installed ONLY if the site is doing a version upgrade. These files are to be installed on all Print Servers. They are NOT to be used in a virgin installation of PCC+. These files include the latest version of the print service (V 1.4), templates (including the new IHS templates), template companion files, header files, and the template information form that are to be placed in the TEMPLATES folder of all Print Servers. Group IIa will be distributed in the file ven12g2a.zip to NT systems or file ven12g2a.gz to UNIX systems.

- ef_header.txt Encounter form header file
- hs_header.txt Health summary header file
- template info.dot Form for entering template information
- hs2_template.doc Health summary template
- og_template.doc Outguide template
- og_template_info.doc Outguide template companion file
- ambcare_template.doc Ambulatory care encounter form (IHS national form)
- ambcare_template_info Ambulatory care encounter form companion file
- ww_template.doc Well woman encounter form (IHS national form)
- ww_template_info.doc Well woman encounter form companion file
- VenPrintSvc_1_4_Setup.zip (contains:)
 - setup.inx
 - data1.hdr
 - data1.cab
 - data2.cab
 - ikernel.ex_
 - layout.bin
 - setup.exe
 - setup.ini
 - version.txt

3.2.3 Group IIb (Virgin Installation)

The files in Group IIb are to be installed ONLY if the site is doing a **virgin print server installation**. These files are to be installed on all print servers. They are NOT to be used in a version upgrade of PCC+. These files include all of the files listed for Group IIa AND all of the files required to install the connectivity-related applications.

Because of the size of Group IIb, the files will only be distributed on CD ROM to sites that are doing a virgin print server installation. Group IIb files are not available on line via the IHS network. Because of its size (>25 MB zipped) it is too large to “tar” it to the sites. The CD contains ten folders and the file autorun.inf.

Sites that purchase pre-configured print servers will not need this CD ROM since its contents will already be installed on the computer. In order to avoid redundancy and potential problems with patch distribution, the CD will NOT contain any M routines, M globals, or PCC+ manuals. This policy has changed since the release of version 1.1.

We anticipate that Group IIb files will rarely, if ever, be distributed by ITSC because most sites choose to purchase print servers with all of the software pre-installed. In the unlikely event that a site wants to install its own print server files, the files must be distributed via CD ROM, mailed to the site by ITSC.

The following files and folders are in the primary directory of the CD:

- **Docs (Folder)**
- **EHP_Files (Folder)**
- **Fonts (Folder)**
- **FTP_Client (Folder)**
- **FTP_Server (Folder)**
- **ICD_Excel (Folder)**
- **Install (Folder)**
- **Net_Term (Folder)**
- **Novell_Client (Folder)**
- **Printer_Service (Folder)**
- **PS_Templates (Folder)**
- **Upgrade (Folder)**
- **WNC (Folder)**
- Autorun.bat (File)
- Autorun.inf (File)
- Setup.ico (File)

Contents of Doc Folder

- Readme.doc (File)

Contents of EHP_Files Folder

- CHKVER.bat (File)
- Install.bat (File)
- Install.exe (File)

- PrintService.bat (File)
- PrintService.ext (File)
- Remove.bat (File)
- Remove.exe (File)

Contents of Fonts Folder

- FREE3OF9.TTF (File)
- Mtsorts_.ttf (File)

Contents of FTP_Client Folder

- Setup.exe (File)

Contents of FTP_Server Folder

- Setup.exe (File)

Contents of Novell_Client Folder

- Wnt48e.exe (File)

Contents of Print_service V.1.4 Folder

- data1.cab (File)
- data1.hdr (File)
- data2.cab (File)
- ikernel.ex_ (File)
- layout.bin (File)
- Setup.exe (File)
- Setup.ini (File)
- Setup.inx (File)
- Version.txt (File)

Contents of ICD_Excel Folder

- IHSEExcelFrontEnd.dll (File)
- Personal.xls (File)

Contents of Install Folder

- auto_01.ini (File)
- autoptn.ini (File)
- autorun.exe (File)
- change.wav (File)
- click.wav (File)
- exit.wav (File)
- logo.bmp (File)

- mxbox_m.bmp (File)
- mxbox_u.bmp (File)
- mxbox_x.bmp (File)
- olepro32.dll (File)
- over.wav (File)
- select.wav (File)
- start.wav (File)
- vb40032.dll (File)

Contents of Net_Term Folder

- nt3242ci.exe (File)

Contents of PS_Templates Folder

- ambcare_template.doc (File)
- ambcare_template_info.txt (File)
- ef_header.txt (File)
- hs2_template.doc (File)
- og_template.doc (File)
- og_template_info.doc (File)
- template_infor.dot (File)
- ww_template.doc (File)
- ww_template_info.txt (File)

Contents of Upgrade Folder

- autoptn.ini (File)
- autorun.exe (File)
- change.wav (File)
- click.wav (File)
- exit.wav (File)
- logo.bmp (File)
- mxbox_m.bmp (File)
- mxbox_u.bmp (File)
- mxbox_x.bmp (File)
- olepro32.dll (File)
- over.wav (File)
- select.wav (File)
- start.wav (File)
- upgrade.bat (File)

- vb40032.dll (File)

Contents of VNC Folder

- INST32I.EX_ (File)
- _ISDel.exe (File)
- _Setup.dll (File)
- _sys1.cab (File)
- _sys1.hdr (File)
- _user1.cab (File)
- _user1.hdr (File)
- data1.cab (File)
- data1.hdr (File)
- data.tag (File)
- lang.dat (File)
- language.dat (File)
- layout.bin (File)
- os.dat (File)
- setup.bmp (File)
- setup.exe (File)
- setup.ini (File)
- setup.ins (File)
- setup.lid (File)
- vssver.scc (File)

Contents of Win_ZIP Folder

- **WIN16 (Folder)**
 - Setup.exe (File)
 - Setup.wz (File)
- **WIN32 (Folder)**
 - Setup.exe (File)
 - Setup.wz (File)
- readme.txt (File)
- setup.exe (File)
- xsetup.exe (File)

3.2.4 Group III

This group contains the latest version of all the PCC+ Manuals in Adobe Acrobat (.pdf) format.

- ven_012i.pdf PCC+ Installation Manual
- ven_012u.pdf PCC+ Users manual
- ven_012t.pdf PCC+ Technical manual

Group III may be distributed in the file ven12g3.zip to NT systems or file ven12g3.gz to UNIX systems.

3.3 Requirements

- Kernel V 8 patch 4 or later (Kernel Part III can be installed)
- FileMan V 21 or V 22
- RPMS Packages
 - **Mandatory**
 - a. Health Summary-APCH V 2.0 patch 07
 - b. PCC Data Entry - APCD V 2.0 patch 07
 - c. IHS Utilities - XB V 3.0 patch 08
 - **Optional (but recommended)**
 - a. Women's Health BW V 2.0 patch 07
 - b. Immunization BI V 7.0
 - c. Medical Administration Service MAS V 5.0 patch 07 (Scheduling is part of MAS)
- **System Requirements**
 - **Windows OS:** The distribution file contains licensed, “off the shelf” copies of Microsoft Windows 2000[®] and Microsoft Office 2000[®] for each print server. (Even though PCC+ has been successfully tested on Windows NT 4.0,[®] we do not recommend this OS.)

Note: Some hardware vendors, such as Compaq, pre-load their own proprietary versions of the Windows operating system on their computers. These machines are incapable of running “off the shelf” copies of Windows 2000[®]. We cannot guarantee that proprietary versions of Windows 2000[®] will be compatible with the PCC+ application. Therefore we do not recommend their use and will not support them.

- **Connectivity/file transfer freeware for the print server:** VNC (remote control software), NetTerm (telnet), WinZip and WS-FTP (FTP service)
- **Network:** PCC+ has been developed and certified on NT networks. Version 1.2 is theoretically compatible with Novel Netware, but it has not been certified in this environment. Netware users can access printers directly by installing a NIC card in each PCC+ printer as described later in this manual.
- **LAN connectivity:** 10 MB LAN minimum.

Note: A 100 MB LAN is preferred – particularly if your site has lots of users that access web pages.

- **WAN connectivity:** Must be able to provide FTP and Telnet access to the local RPMS server and print server within the IHS firewall. If multiple sites are connected to a single print server over the WAN, the minimum recommended throughput speed is 256 KB, bi-directional. Faster speeds (greater than 640 KB) are recommended.

Note: Most sites will not be using a single print server to serve multiple sites.

- **Print Servers:** We recommend installing two print servers with the following specifications:
 - **Desktop Configuration (minimum requirements)**
 - INTEL PIII 733 MHZ Processor
 - 56K V.90 Fax/Modem
 - AGP VGA 8M Video Adapter
 - 10/100 Smart NIC (Intel or 3 COM)
 - INTEL Motherboard
 - Micron Memory (or equal quality)
 - ECP/EPP Printer Port
 - 128MB -100MHZ SDRAM
 - 10 or more GB Hard Drive
 - 15" VGA Monitor, .28 Digital Display
 - 45X CDROM
 - 1.44 Floppy Disc Drive
 - 104 PS/2 Keyboard
 - Logitech PS/2 Internet Mouse

- 2 Year Hardware Warranty
 - MS Windows 2000 PRO
 - MS Office 2000 SBE
 - Port switch and cables for PS/2 keyboard, mouse, and VGA monitor
- **Printer(s):** HP 1100 - 5000 series with at least 5 MB of on-board RAM. Duplex printing capability is supported but not required.

Note: Other laser printers capable of 600 dpi and 12+ ppm can be used, but experience with non-HP printers has not been satisfactory. Ink jet printers should not be utilized in live clinical environments.

- **Laser Printer Requirements**

Number Of Patients/Hour Per Clinic (Or Printer Group)	Printer Type	Minimum Memory
< 5 / hour	Any laser	
5 – 15 / hour	HP 1000 series	8 pages/min. = Or > 2 MB memory (4 MB is better) 600 x 600 DPI
16 – 60 / hour	HP 4000 series	17 pages/min. = Or > 8 MB memory 1200 x 1200 DPI
> 60 / hour	Multiple HP 4000 series	17 pages/min. = Or > 8 MB memory 1200 x 1200 DPI
*size of paper tray and paper handling are also considerations		
**duplex printing may be considered		

4.0 Installation Overview

PCC+ installation is carried out in two stages:

1. Install version 1.2 (either an upgrade or virgin installation)
2. Complete final configuration tasks on the print server and RPMS server

If you are currently running version 1.1 of the PCC+ program and are upgrading to version 1.2, go to section 5.0.

If you do not have PCC+ running at your site and are installing it for the first time, go to section 6.0.

5.0 Upgrade Version 1.1 to Version 1.2

If you are doing a virgin install of PCC+, proceed to section 6.0¹. If you are upgrading from version 1.1, proceed as follows.

At this stage, you will need to install two components of PCC+ V. 1.2:

1. New PCC+ routines and inits
2. A new version of the PCC+ print service (PS Version. 1.4)

Each of these components has its own installation process, as described below. Both must be successfully installed before resuming normal PCC+ operations.

Note: The system requirements are unchanged from V 1.1 *except* that the restrictions banning the use of PCC+ with FileMan 22 and Kernel part III have been lifted. PCC+ will NOT run on the current version of Word XP and it will NOT run on Word 95/97. **Only Word 2000 should be installed on the print servers.**

5.1 Installing New PCC+ Routines and Inits

Version 1.2 contains 32 standard routines and 38 init routines. There are no new globals to install.

1. Copy all 70 routines into the production account (UCI).
2. Shut down PCC+ on the RPMS server before installing the routines. (Do not reactivate PCC+ until you have completed the entire installation.)
 - It is not necessary to shut down PCC or the RPMS server while applying the new version.
 - Make sure all PCC+ users are off the system.
 - If necessary, temporarily block access to the PCC+ Print Options Menu to keep users from checking-in patients.
 - If necessary, temporarily set the Bypass Printing option in the VEN EHP CONFIGURATION file to YES. This will isolate the RPMS server from the print server.
3. Stop the print daemon (Figure 5-1). To do so, type **STOP** at the “Select Manager's Menu for Encounter Forms Option:” prompt (Manager's Menu) and press the Return key.

¹ This statement was revised 4/18/02. See correction number 1 (section **Error! Reference source not found.**) for more information.

```

ILC ENC FORM/HLTH SUMMARY V1.2:  New Encounter Form
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----
INS      Installation Utilities ...
MGR      Manager's Menu for Encounter Forms ...
PRNT     Print Forms ...

Select New Encounter Form Option:  MGR

ILC ENC FORM/HLTH SUMMARY V1.2:  Manager's Menu for Encounter Forms
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----
PRNT     Print Forms ...
MON      Monitor Print Deamon
GO       Start Print Deamon
STOP     Stop the Print Deamon
ICD      Import ICD Preferences from Excel
EXTR     Extract Preferences from PCC Database
SYS      Edit Orderables
QUE      Monitor the Check-In Queue
CLON     Clone a set of ICD preferences
CORD     Clone Orderable Set
DICD     Delete a users ICD preferences
DORD     Delete an Orderable Set
EDI      Edit ICD Preferences

Select Manager's Menu for Encounter Forms Option:  STOP

```

Figure 5-1: Stopping the Print Daemon

4. Restore all 70 routines in the production account (Figure 5-2).

```

>D ^%RR
      MSM - Routine Restore Utility

Enter input device <HFS>:  Host File Server
File Name >: ven_0120.r
Routine(s) saved at 12:57 AM  14-SEP-01
Header comment is: PCC+ Ver 1.2 routines and inits
Selective restore? (allows rename) <N>: NO
Restoring...

VENIN001 VENIN002 VENIN003 VENIN004 VENIN005 VENIN006 VENIN007 VENIN008
VENIN009 VENIN00A VENIN00B VENIN00C VENIN00D VENIN00E VENIN00F VENIN00G
VENIN00H VENIN00I VENIN00J VENIN00K VENIN00L VENIN00M VENIN00N VENIN00O
VENIN00P VENIN00Q VENIN00R VENIN00S VENIN00T VENINIS VENINIT VENINIT1
VENINIT2 VENINIT3 VENINIT4 VENINIT5 VENPCC  VENPCC1  VENPCC1A VENPCC1B
VENPCC1C VENPCC1D VENPCC2  VENPCC3  VENPCCD  VENPCCD1 VENPCCG  VENPCCG1
VENPCCG2 VENPCCG3 VENPCCG4 VENPCCM1 VENPCCM2 VENPCCM3 VENPCCM4 VENPCCMC
VENPCCMD VENPCCME VENPCCMF VENPCCMI VENPCCML VENPCCMP VENPCCMX VENPCCOH
VENPCCP  VENPCCU  VENPCCX  VENPCCX1

70 Routines restored.
>

```

Figure 5-2: Restoring Routines

5. If you do not already have programmer privileges in FileMan, set DUZ(0)="@".
6. Run the inits (D ^VENINIT), accepting all defaults as you do so.
 - Several new menu options will automatically appear on standard PCC+ menus.
 - One new key is included in the package VENZSCH for the scheduling package.

NOTE: Five PCC+ installation routines in the namespace VENPCCI* are being released to ITSC support technicians at the same time as Version 1.2. We mention these routines because they are class C software, and they are not part of the PCC+ distribution package. Installation routines are to be used only by certified support technicians. **Any routines in the namespace VENPCCI* are to be removed from the target system as soon as the installation is complete.**

5.2 Installing Print Service Version 1.4

Install the new print service (V 1.4) on both print servers. Installing the new print service on only one of the print servers is not advised. Remember, both print servers must be identical except for their NetBios names and IP addresses.

Warning: Do not uninstall the old PCC+ print service. Uninstalling the old version of the print service is unnecessary and may cause unintended side effects.

There are seven steps to upgrade your existing print service to version 1.4. Follow the directions below:

1. Import and unzip Print Service version 1.4
2. Shut down PCC+
3. Stop the PCC+ print service
4. Save the existing print group database file
5. Install the new PCC+ print service
6. Restart the print service
7. Restart PCC+

Once these steps are completed on the first print server, repeat the entire process on the second print server.

5.2.1 Import and Unzip the New Print Service

The distribution contains a zip file: IlcFormsPrintSvc_1_4_Setup.zip.

1. Create a new Windows folder c:\ProgramFiles\ILC\PS131\.

Note: The c:\ProgramFiles\ILC\ path already exists on both print servers.

2. Copy IlcFormsPrintSvc_1_4_Setup.zip into this folder.
3. Use WinZip or some similar utility to unpack the contents of the zip file.

Note: WinZip should have already been pre-installed on both print servers. If WinZip has not been pre-installed, you can download a test copy at the download.com web site.

After you unzipped the file, 9 files will appear in the folder, including the Setup.exe file (Figure 5-3).

Name	Size	Type	Date Modified
data1.cab	524 KB	WinZip File	10/1/2001 9:00 PM
data1.hdr	17 KB	HDR File	10/1/2001 9:00 PM
data2.cab	3,150 KB	WinZip File	10/1/2001 9:00 PM
ikernel.ex_	332 KB	EX_ File	8/9/2001 5:00 PM
layout.bin	1 KB	AVG Update File	10/1/2001 9:00 PM
Setup.exe	45 KB	Application	5/16/2000 2:37 AM
Setup.ini	1 KB	Configuration Settings	10/1/2001 9:00 PM
setup.inx	141 KB	INX File	10/1/2001 9:00 PM
Version.txt	1 KB	Text Document	11/1/2001 7:16 PM

Figure 5-3: 9 Unzipped Files

5.2.2 Make Sure PCC+ Is Shut Down

Installation of the new print service requires that PCC+ be shut down. This should have already been done when you installed the new routines and inits in section 5.1.

5.2.3 Stop the PCC+ Print Service

1. Click the Start button in the lower left corner of the print server window.
2. Click the Settings option (Figure 5-4).

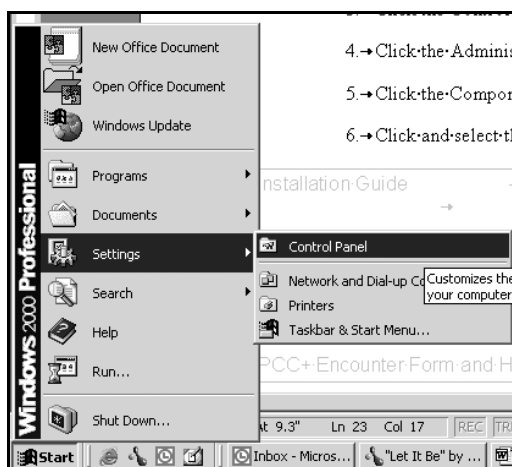


Figure 5-4: Opening the Control Panel

3. Click the Control Panel option. The control panel window will open (Figure 5-5).

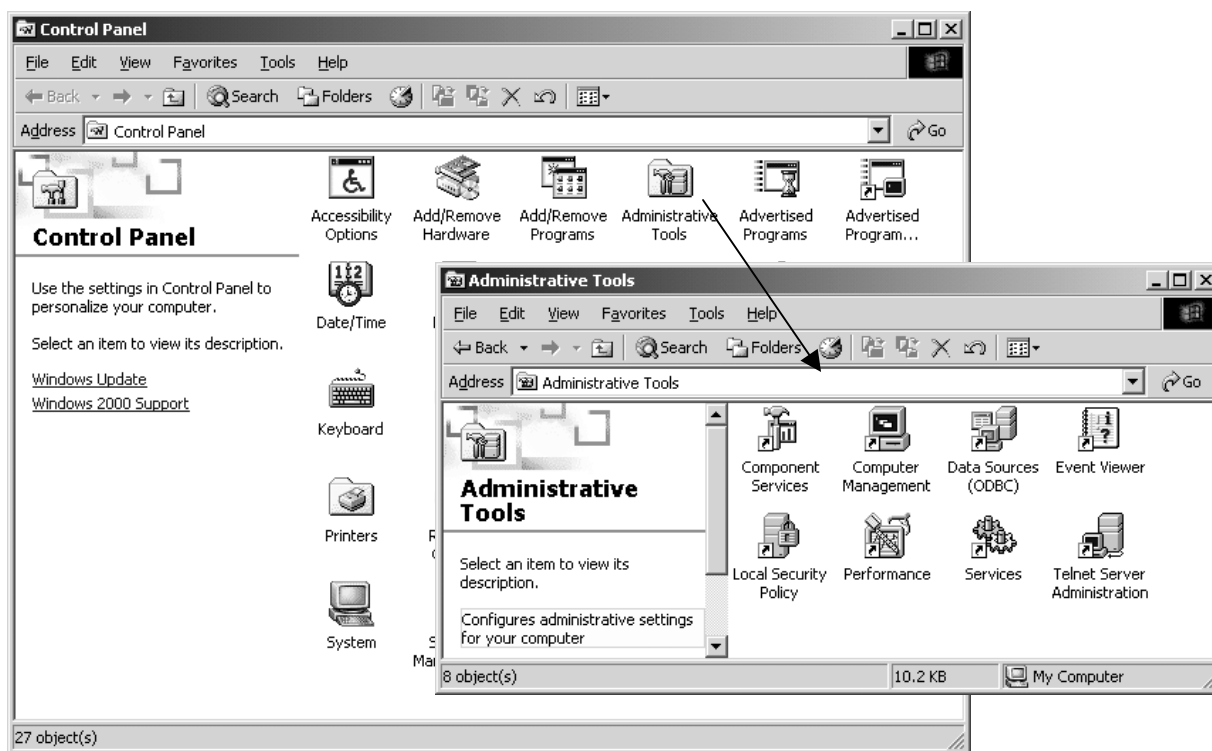


Figure 5-5: The Print Server Control Panel and Administrative Tools Screens

4. Click the Administrative Tools icon in the control panel window.
5. Click the Component Services icon.
6. Click and select the ILC Forms Print Service option from the list.
7. Click the Stop button located on the toolbar. A pop-up window will appear, confirming that the service has been stopped. Minimize (not close) this window. You will need this window again soon.

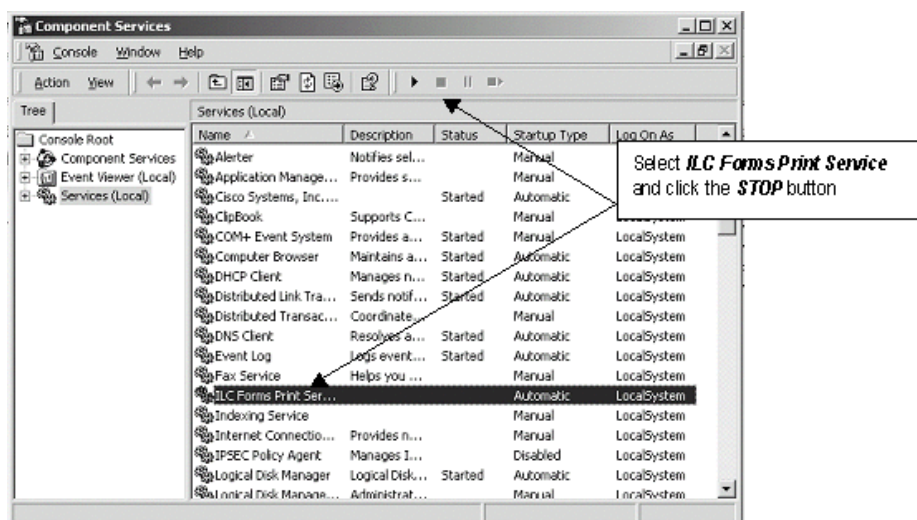


Figure 5-6: Stopping the PCC+ Print Service

5.2.4 Save the Existing Print Group Database File

1. Navigate to c:\ProgramFiles\ILC\ILC Forms Print Service and locate the IlcPrint Svc.mdb file.
2. Copy the IlcPrint Svc.mdb file to the desktop for safekeeping. You will need to use it soon.

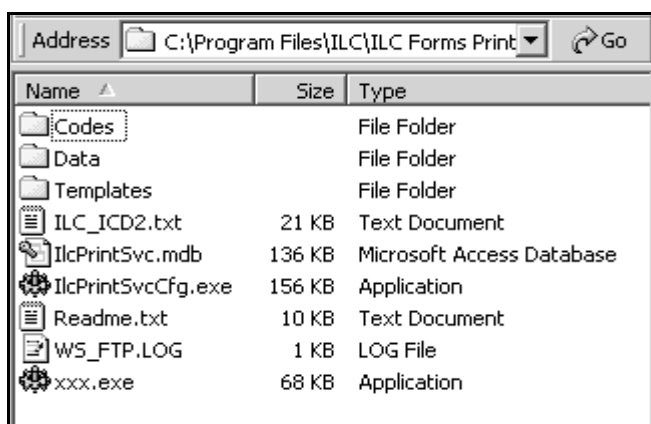


Figure 5-7: Copy the IlcPrint Svc.mdb file to the desktop

5.2.5 Install the New PCC+ Print Service

1. Navigate to c:\ProgramFiles\ILC\PS131\ again.
2. Double click the Setup.exe file and accept all defaults.

Warning: When you come to the last frame in the installation process, **do not** check the “Yes I want to configure....” box. If changes need to be made to the configuration, do this later.

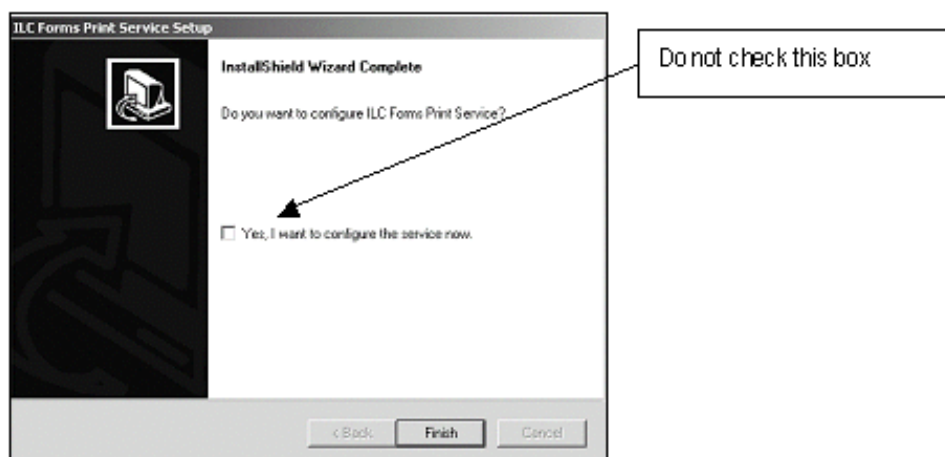


Figure 5-8: Install the New PCC+ Printer Service

3. Click the Finish button and the new print service will be installed.
4. Navigate to `c:\ProgramFiles\ILC\ILC Forms Print Service\` and delete the file `IlcPrint Svc.mdb`.
5. Move the old version of `IlcPrint Svc.mdb` (the file you moved to the desktop in step 5.2.4) to the `c:\ProgramFiles\ILC\ILC Forms Print Service\` folder. This will preserve the settings from the previous print service configuration.

5.2.6 Restart the Print Service

1. Maximize the Component Services window, which you previously minimized in step 5.2.3).
2. Select the ILC Forms Print Services option from the list and click the Start button. A window will pop up confirming that the new print service has been started.

5.2.7 Restart PCC+

Restart PCC+, which you shut down in section 5.2.2.

1. If necessary, restore access to the PCC+ Print Options menu, enabling users to check-in patients.
2. Reset the Bypass Printing option in the VEN EHP CONFIGURATION file to NO, restoring printing to the PCC+ program.
3. It is not necessary to restart the print daemon. This will happen automatically as soon as a patient is checked-in.

Congratulations, you have successfully completed the first step in upgrading PCC+ to version 1.2. Skip to section 6.5 to finish the installation by configuring the RPMS server.

6.0 Virgin Installation of PCC+

A virgin installation of PCC+ has two steps. First, you must install and setup the PCC+ print server and printer server applications (section 6.1). Second, you must install and setup the PCC+ RPMS server (section 6.4).

Warning: Before you can do either of these steps, you must first work through the business office preparations, outlined in the user's manual, and the clinical information preparations, outlined in section 6.3. Failure to work through these preparations will result in a greatly increased installation/ setup time and may result in the RPMS and Print servers **failing to synchronize**.

6.1 Installing the PCC+ Print Server and Applications

If PCC+ is being installed for the first time, follow the directions shown below. Otherwise, skip to section 6.5.

This section provides detailed information on installing and configuring the print servers. The use of dual print servers is strongly recommended to provide fail-safe redundancy for this critical application. This section details the installation of Microsoft Windows 2000[®] and Office 2000[®] on the print servers, configuration of Word[®] for editing encounter forms, configuration of Excel[®] for editing user preferences, installation of the connectivity applications, and installation/ configuration of the PCC+ print service.

Note: No other applications should run on the print server except those related to PCC+.

The PCC+ print server has six major functions:

1. It controls the formatting and printing of health summaries across the network. After data is extracted on the RPMS server, it is passed across the network via a TCP/IP message. A special background application on the print server (an NT service), the PCC+ print service, is continuously listening for these messages. When the print service receives a message, it automatically unpacks it, runs the Word mail merge process, and causes a new document to be generated on the appropriate printer.
2. It manages the synchronization of files between the RPMS server and the print server.
3. It manages errors and continuously reports back on its progress to the RPMS server.
4. The print server contains a customized version of Microsoft Word[®] that is used to build and edit encounter form templates.

5. The print server contains a customized version of Microsoft Excel[®] that is used to edit and format provider-specific lists of preferred diagnoses.
6. It contains secure connectivity applications so that support personnel can remotely maintain the system.

The print server must communicate with the “outside world” in order to update software and conduct troubleshooting activities. The RPMS server already has this connectivity through the IHS wide area network (WAN). In order to achieve comparable connectivity on the print server, you will need to add five additional applications as described below.

**IF YOU ARE SETTING UP A PRE-CONFIGURED PRINT SERVER
PURCHASED FROM A PCC+ HARDWARE VENDOR, READ THIS NOW**

Most sites will purchase pre-configured print servers and will **not** need to do a virgin install. When the pre-configured server arrives, boot it up and follow these steps.

- Enter the Windows 2000 key code
- Enter the registration information
- Enter the NetBios name as requested. The NetBios name is a unique name you give your computer when it is attached to a network. In this case, you will need to assign two consecutive NetBios names—one for each print server. We recommend using lowercase names less than nine characters long; e.g., “prntsvc1” and “prntsvc2”.
- Enter the static IP address as requested. If necessary, obtain this address from your network administrator or Area IT consultant.
- The system will reboot is now ready to go.
- Setup the PRINTSERVICE account as described in section 6.1.1.2
- Double check the network configuration as described in sections 6.1.1.3-6.1.1.4.
- Test the network connection as described in section 6.1.4.1.

After completing the process outline above on BOTH print servers, the next steps are to assign printers and configure the Print Service. Make sure you are logged on as PRINTSERVICE. Skip to section 6.1.7.

If you have not purchased pre-configured print servers, you will need to do a step-by-step installation in conjunction with three CD ROM installation disks:

- The Windows 2000 CD
- The Office 2000 CD
- The PCC+ Installation CD

The following sections describe the seven steps of configuring print servers from scratch.

1. Install Microsoft Windows[®] and Office 2000[®] (section 6.1.1)

2. Configure Word® (section 6.1.2)
3. Copy PCC+ Applications (section 6.1.3)
4. Install connectivity applications (section 6.1.4)
5. Install the print service and document templates (section 6.1.5)
6. Configure the Windows desktop (section 6.1.6)
7. Add printers and configure the print service (section 6.1.7)

6.1.1 Install Windows 2000® and Microsoft Office 2000®

Purchase a separate, licensed copy of Windows 2000® and Office 2000® for each print server. Use only legal, off-the-shelf, “official” Microsoft Windows and Office 2000 CD ROMs for the installation. Do not use proprietary versions of Windows 2000 offered by vendors such as Compaq. Although the PCC+ print server software has been successfully tested on Windows 98 and NT 4.0, we DO NOT recommend the use of these operating systems, and they are not supported.

6.1.1.1 Install the Microsoft Software

For each print server, follow the instructions below. The following instructions assume that you are installing the Microsoft applications on a “virgin” system with a blank, unformatted hard drive.

1. Read the Microsoft Windows 2000® installation manual.
2. Turn on the print server, put the Windows installation CD ROM in the CD drive, and close the drive.
3. Restart the computer.
4. Follow the instructions displayed. (You should see a message like “Press any key to boot from CD ROM” or “Press the F3 key to boot from CD ROM.”) If you do not see instructions, you will need to change your boot settings. (See the technical manual for your computer (not the PCC+ technical manual) for instruction on how to configure the boot settings EPROM.)
5. Follow the instructions displayed for creating a partition for Windows 2000® after the system boots from the CD ROM. There is no limit on partition size, and we suggest that you use all the space on the hard drive for the C:\ directory. Put Windows 2000® in that directory.
6. Accept all the defaults and do a standard installation of Windows 2000®.
7. During the installation process, you will be asked to enter a NetBios name. The NetBios name is a unique name you give your computer when it is attached to a network. In this case, you will need to assign two consecutive NetBios names—

one for each print server. We recommend using lowercase names less than nine characters long; e.g., “prntrsvcl” and “prntrsvc2”.

8. Read the Microsoft Office 2000® installation manual.
9. Put the Office installation CD ROM in the CD drive and close it. The installation process should start automatically.
10. Install Office 2000®, accepting all the defaults for the standard installation. This process is virtually automatic and takes about 10 minutes. At this point you should have a viable Microsoft work environment on the print server.

6.1.1.2 Create a Print Service Manager's Account

With Windows 2000®, access to NT services and use of network resources is closely controlled by establishing user accounts and user permissions. In PCC+, without proper accounts and permissions, the print service will fail to work properly and it may be impossible to print requested documents. To assure that PCC+ works properly, you must create a print service manager's account. Later, permissions associated with this account will be assigned to the PCC+ print service and associated printers.

The PCC+ print service should run under a new account called PRINTSERVICE. It will **not** run under the Administrator's Account. (The Administrator's Account is the default for Windows 2000®). To create the new account, follow the directions shown below (Figure 6-1).

1. Click the Start button. A dropdown menu will appear.
2. Click the Settings option. Another dropdown menu will appear.
3. Click the Control Panel option. The Control Panel window will appear.
4. Click the Users and Passwords icon. The Users and Passwords window will appear.
5. Click the Add option. The Add New User window will appear.
6. Type PRINTSERVICE in the “User Name:” field. The user name is not case sensitive. Make sure that you document the user name selected.
7. Type PRINT SERVICE MANAGER in the “Full Name:” field.
8. Type PRINT SERVICE MANAGER in the “Description:” field.
9. Click the Next button. A second Add New User window will appear.
10. Type the password of choice in the “Password:” field. The password is case sensitive. Make sure that you document the password entered.

11. Retype the password exactly as you typed it before in the “Confirm Password:” field.
12. Click the Next button. A third Add New User window will appear.
13. Select the Other option (the third option) at the “What level of access to you want to grant this user?” question.
14. Select the Administrators access level option from the dropdown list to the right.
15. Click the Finish button.

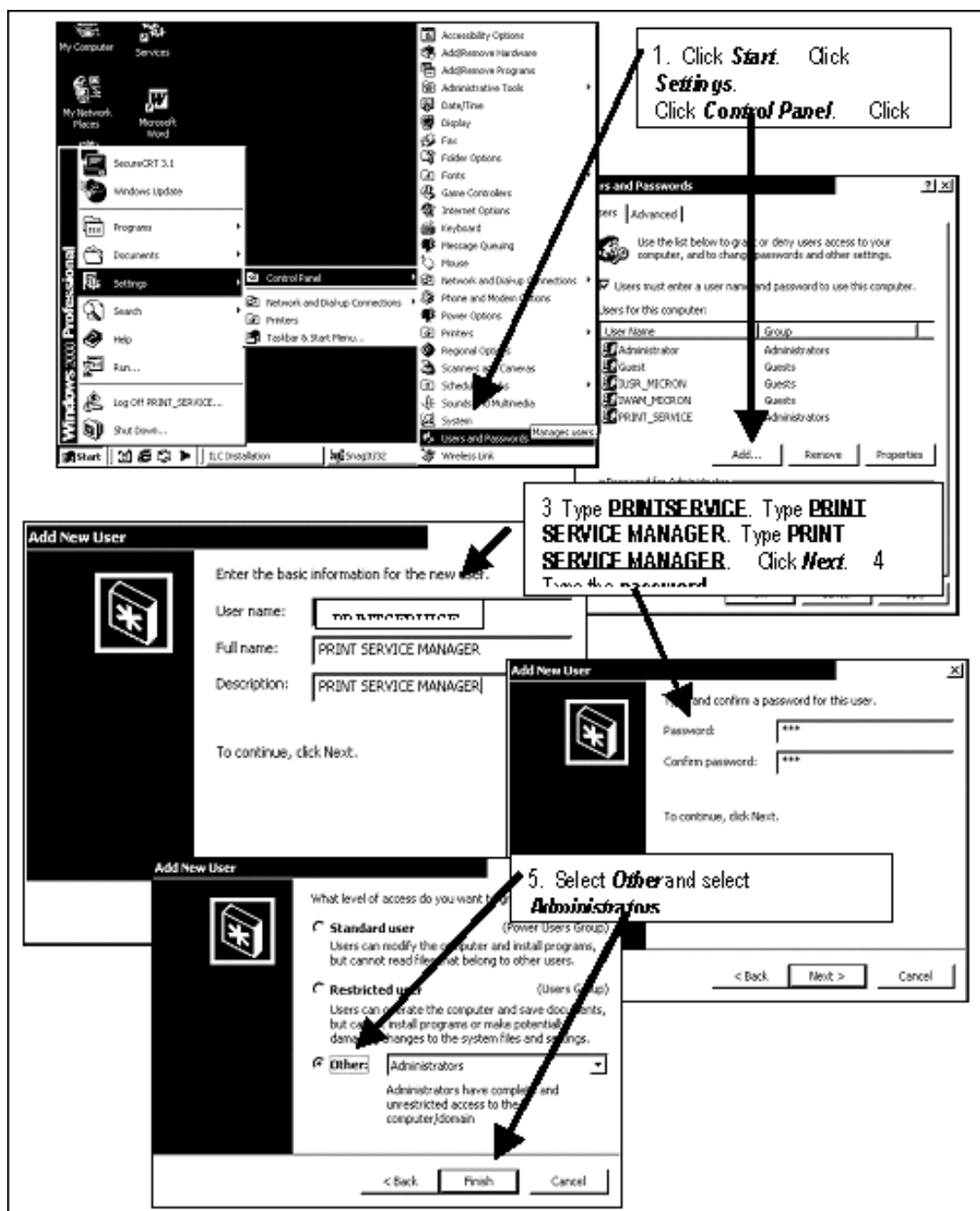


Figure 6-1: Creating a Print Service Managers Account, Steps 1 – 5

16. Click the Start button in the lower left corner of your computer screen. A dropdown menu will appear. Click the Logoff option.
17. Log on again as PRINTSERVICE. Then enter the password. Once you are logged in as PRINTSERVICE you are ready to complete the installation.

NOTE: From this point forward, everything you do on the print servers must occur when you are logged in under the PRINTSERVICE account. By logging on as PRINTSERVICE, all appropriate permissions will be assigned when you install the PCC+ print service and printers. Failure to log on as PRINTSERVICE will invalidate the installation, and the PCC+ application will NOT work properly. **Do not log in as Administrator.**

6.1.1.3 Identify IP Addresses

On the LAN, each print server and printer must have a unique, static IP address in the format of xxx.xxx.xxx.xxx where “xxx” is a positive integer from 1 to 256. The following IP address conventions are used at most IHS sites.

1. The first “xxx” is 161.
2. The second “xxx” is 223.
3. The third number is the site number (e.g., Gallup Indian Medical Center is ‘34’, so all Gallup Indian Medical Center IP address begin with 161.223.34.xxx).
4. The fourth number is the device identifier.
5. The print server IP addresses should be consecutive; e.g., 161.223.34.110 and 161.223.34.111.

At this time, you must obtain two consecutive static IP addresses to assign to your print servers. If you are not sure how to do this, call your Area IT support personnel. They can help you identify unused, consecutive static IP addresses.

6.1.1.4 Assign an IP address to the Print Servers

Use Windows 2000[®] utilities to assign IP addresses to both print servers. If you do not what numbers to use, check with your area IT consultant or network administrator.

1. Log on to the computer as Administrator.
2. **Right click** the My Network Places icon on your desktop. A drop down menu will appear.
3. Click the Properties option.
4. Right click the Local Area Connection option. Another drop down menu will appear.
5. Click the Properties option on the drop down menu.

6. Double click the Internet Protocol (TCP/IP) option. The TCP Configuration window will appear.
7. Type the print server IP address in the “IP address:” field.
8. Type the subnet mask in the “Subnet mask:” field.
9. Type the default gateway in the “Default gateway:” field.
10. Type the preferred DNS servers in the “Preferred DNS servers:” field.
11. Type the alternate DNS servers in the “Alternate DNS servers:” field.
12. Click the OK button.

Repeat this process for the second print server.

Note: This computer must have a Static IP address on the network. Contact the network administrator with questions regarding the static IP address.

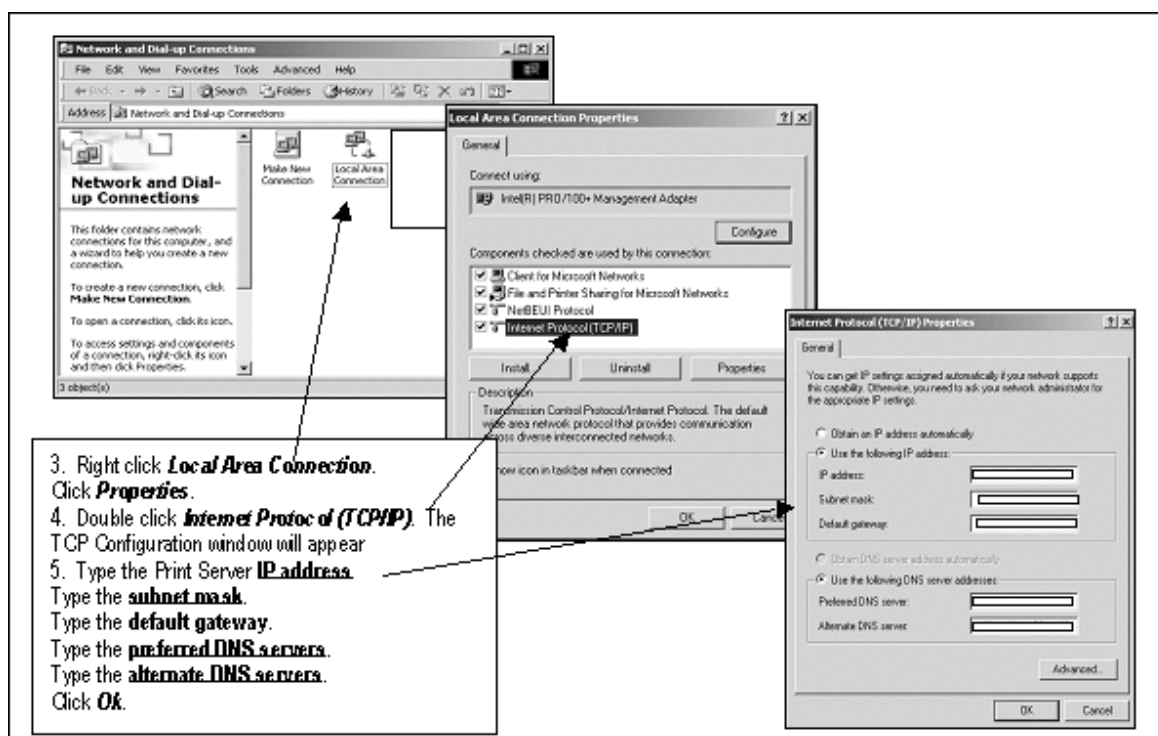


Figure 6-2: Assign an IP address to the print servers

NOTE: Do not use a DHCP server to configure the network settings on this computer.

6.1.2 Configure Word

If you have purchased a pre-configured print server from a PCC+ hardware vendor, Word has already been installed on your system. Please skip to section 6.1.6.

Encounter Form templates are constructed using Microsoft Word®. The construction process is greatly facilitated by pre-configuring Word®. We suggest configuring the Word® application that has been loaded on to your print server so that template development can be done on this machine. Of course, Microsoft Word® configuration can be done on any Microsoft Windows® computer that currently runs Office 2000®. To configure Word®, follow the directions in the PCC+ users manual.

6.1.3 Copy Applications to the Desktop

The remaining print server applications are distributed on the PCC+ CD ROM. Place the CD in the bay and close the drawer. The installation process should start automatically in about 15 seconds.

If the process doesn't begin automatically:

1. Click the My Computer icon on the desktop.
2. Click the CD icon. The primary PCC+ Installation Menu will appear with seven choices (Figure 6-3). The sixth choice, Utils/Docs, has a submenu. Drag the cursor over the button to view a description of its function.
3. Click a button to initiate the installation of each of the components.

Note: The order of the buttons is different than the order of installation described in this manual.

4. At the start of each of the following sections you will be instructed to click one of the buttons.
5. You can click the Documentation button to view the read me file.
6. Click the Exit button to close the CD menu.

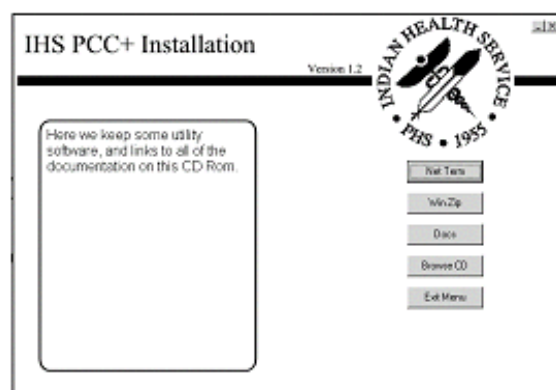
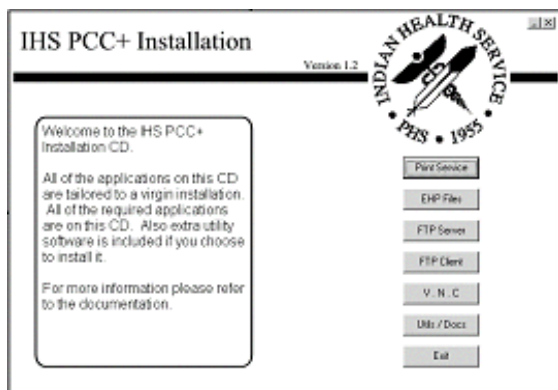


Figure 6-3: PCC+ Installation CD, Main Menu and Submenu

Once you have selected an installation function, you will be presented with an installation wizard for the desired component. In most cases you may proceed by simply accepting the defaults, but there are exceptions.

6.1.4 Install Connectivity Applications

There are three reasons why we must be able to establish a secure connection to a print server from remote sites within the IHS firewall. First, the print server must be able to communicate with the RPMS server to receive document requests. Second, the print server must communicate with all the printers on the LAN that will generate PCC+ documents. Third, for purposes of upgrades and troubleshooting, the print server must be accessible to qualified application support personnel located within the IHS firewall.

The PCC+ Install CD contains five applications that ensure good connectivity to the outside world.

- **FTP Server** enables you to transfer files to a print server from a remote location
- **FTP Client** enables you to transfer files to the print server by using tools located on the print server itself
- **VNC** enables you to have full, password protected remote control of the print server
- **WinZip** enables you to compress/decompress files in the ZIP compression format
- **NetTerm** enables you to conduct remote session on the RPMS server from the print server

All five of these applications should be loaded on both print servers as described in the following sections.

It is not necessary or recommended that the print server to be part of the local network domain (i.e., you do not have to see it under Network Neighborhood). In fact, making the print server part of the domain presents a number of security concerns. However, it is necessary for the print server to be connected to the LAN. This is accomplished by assigning a valid, static IP address within the local range to the print server.

<p>NOTE: Do not use a DHCP server to configure the network settings on the print server.</p>

6.1.4.1 Check Network Adapter & LAN Connectivity

The first step is to check the network adapter card.

1. Click the Start button.

2. Click the Settings option.
3. Click the Control Panel option. The Control Panel Window will appear.
4. Click the System option.
5. Click the Hardware/Device Manager option. The Device Manager window will appear.
6. Click the Network Adapters option to confirm that the internal network card has been installed and is functioning properly (i.e. be sure that there is not a red X or yellow exclamation point covering the adapter icon). Also, be sure that the network adapter cable is plugged in.
7. Click the Internet Explorer icon to connect to the Internet. This tests connectivity. If you do not have an Internet Explorer icon, obtain the IP address of the RPMS server and run steps 6 and 7.
8. Click the Start button. Click the Run button. The Run dialogue box will appear.
9. Type `ping xxx.xxx.xxx` where `xxx.xxx.xxx` is the RPMS IP address. Click the OK button (Figure 6-4).

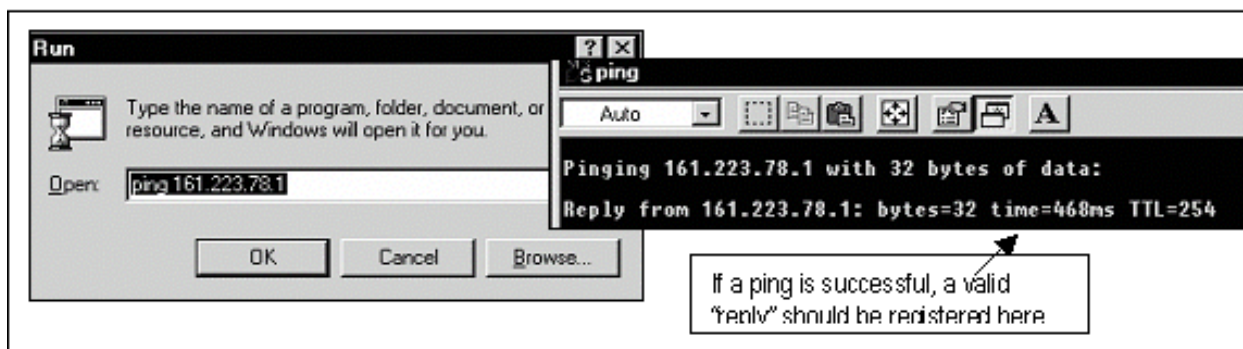


Figure 6-4: Check the Network Adapter and LAN

6.1.4.2 Install FTP Server

An FTP service enables remote users (i.e. support personnel) within the IHS firewall to view, add, and delete designated files on the local system via a TCP/IP (Internet-type) connection. We suggest using the Microsoft FTP Server software that is built into Windows 2000 Professional. If you are using the PCC+ CD and you click the FTP Server button, you will get a pop up message informing you to install the Windows 2000 FTP Server.

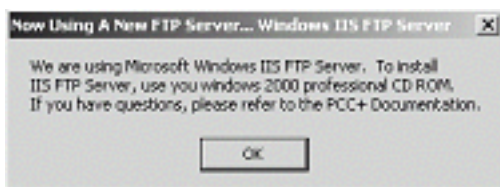


Figure 6-5: Install FTP Server Message

On the Start bar, click Start > Settings > Control Panel > Add/Remove Programs > Add/Remove Windows Components. Highlight the Internet Information Service option and click the details button.

Note: Do not check the IIS check box.

A window will appear and list the IIS services available. Click the File Transfer Protocol (FTP) Server check box and the system will automatically check the Common Files and Internet Information Services Snap-in check boxes. Click the OK button (Figure 6-6).

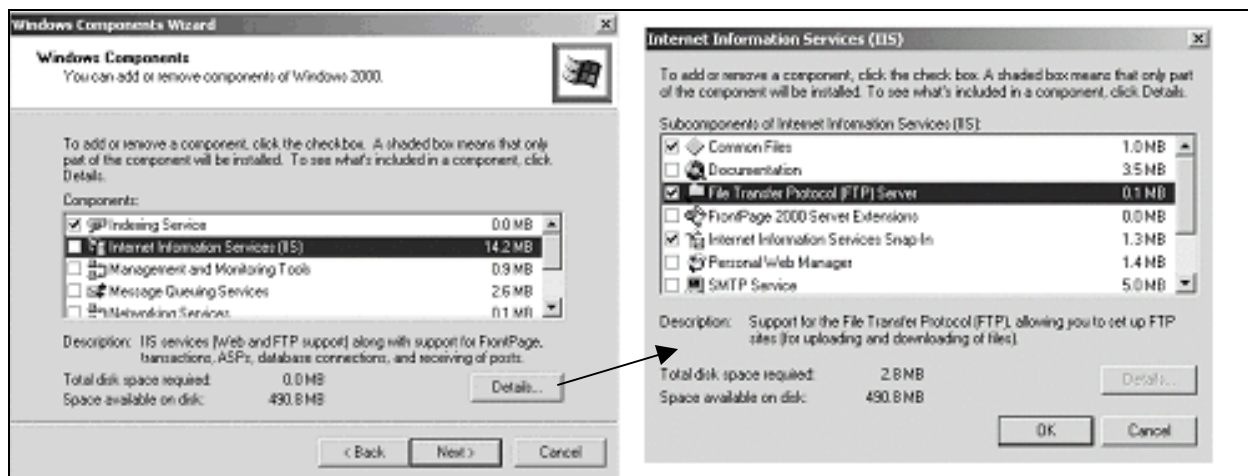


Figure 6-6: Installing FTP Server, Part 1

The next window will confirm your selection (Figure 6-7). If you are prompted to do so, put the Windows 2000 CD in the CD ROM drive. Click the Next button and the components will be added. Click the Finish button (Figure 6-7).

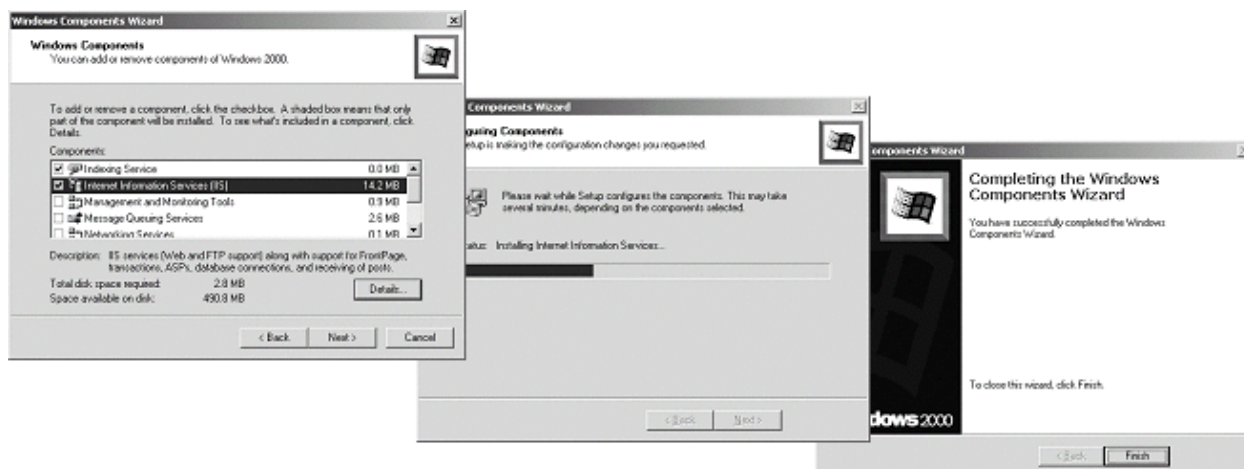


Figure 6-7: Installing FTP Server, Part 2

Next, you will configure the FTP Server. Right click the My Computer folder (on your desktop) and click the Manage option.

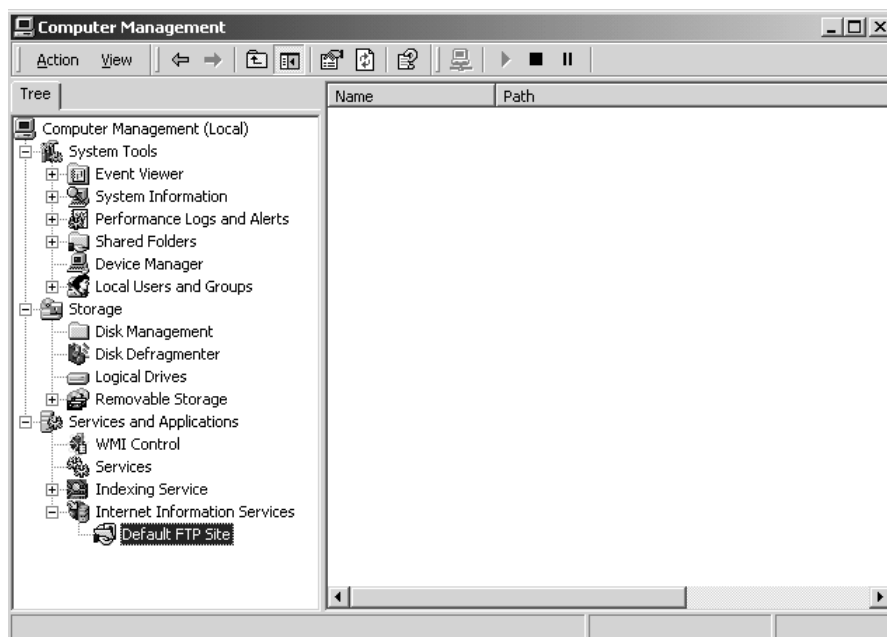


Figure 6-8: Installing FTP Server, Part 3

Right click the Default FTP Site option and click the Properties option (Figure 6-8). Click on the Security Accounts tab and deselect the Allow Anonymous Connections check box (Figure 6-9).

Click on the Home Directory tab, set the Local Path: to “C:\”, and check the Read Write and Log visits check box (Figure 6-9). Click the OK button.

At this point, users who have been registered on the system will have full FTP access to the c:\ directory and all of its subdirectories. They must log in to FTP with their standard Windows 2000 user name and password. No anonymous users will have access to the system.

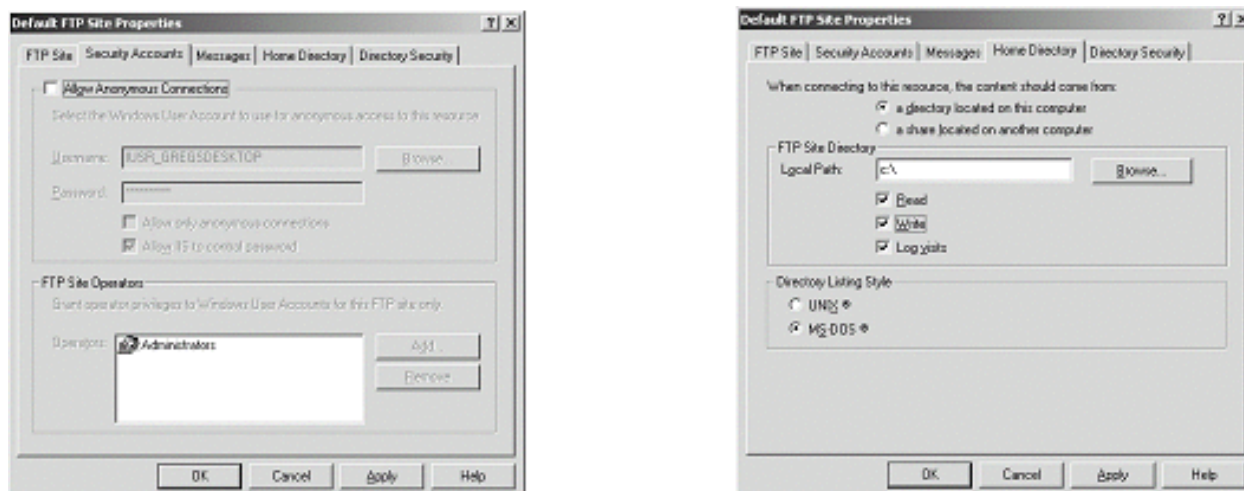


Figure 6-9: Configure FTP Site Properties

6.1.4.3 Install the FTP client

Click the FTP client button. The FTP Client wizard will appear. This application will enable you to access other FTP servers from the print server. Simply fill in the user information and accept the defaults.

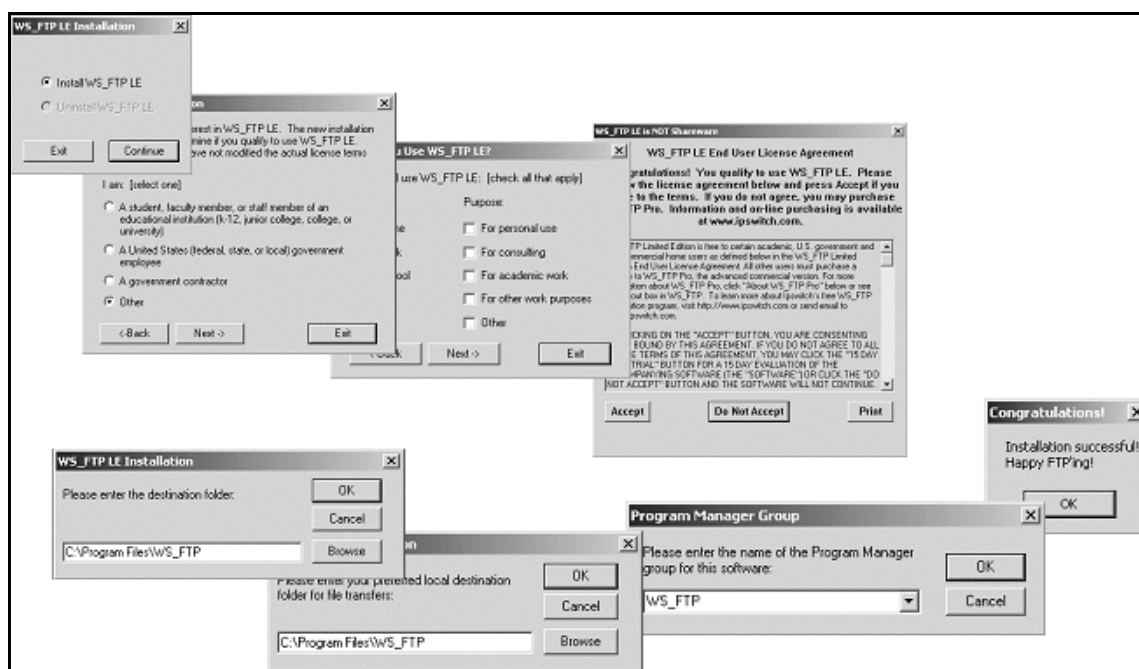


Figure 6-10: Installing the FTP Client

6.1.4.4 Install the Remote Control Software

Password protected remote control software enables support personnel within the IHS firewall to remotely operate the Windows-based print server via a TCP/IP connection. We have chosen a freeware application called VNC to provide remote control support. VNC is available on the Installation CD ROM, or the latest version can be downloaded from the Internet at <http://www.download.com>. This section provides instructions on

how to load VNC on to the print server. If you are using the PCC+ CD, begin by clicking the VNC button.

Install the VNC Program

1. Run the VNC setup program and click the Next button at the welcome window. The Software License Agreement window will appear (Figure 6-11).
2. Click the Yes option. The Choose Destination Location window will appear.
3. Click the Next button and accept the default destination folder. The Select Program Folder window will appear.
4. Click the Next button and accept the default selections. The Setup Complete window will appear.
5. Click the Finish button. This completes the installation process.
6. Reboot the system.

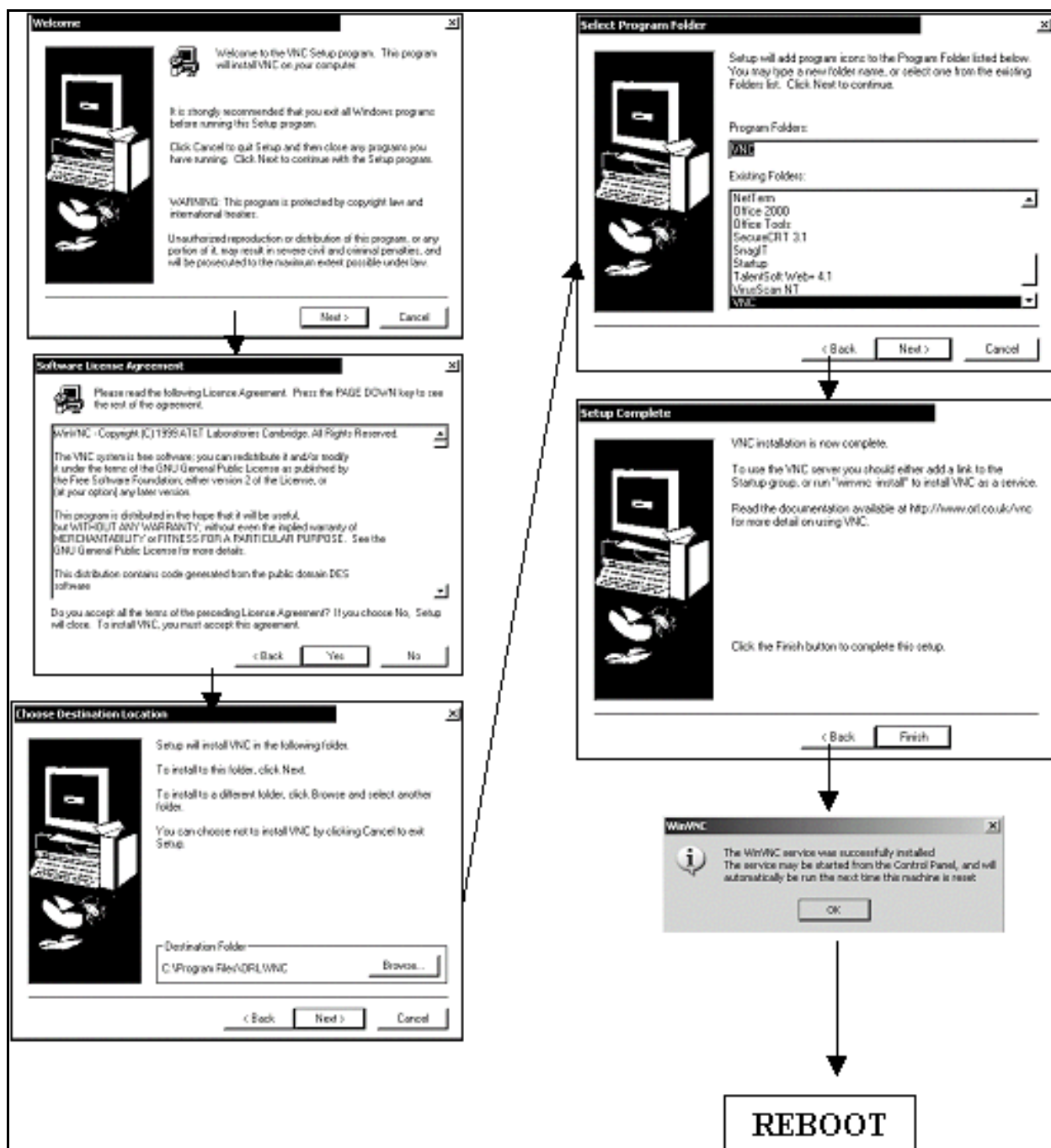


Figure 6-11: Installing the Remote Control Software

Setup VNC as a Service

When the system reboots, you will need to install VNC as a service. This means that VNC will automatically be running in the background whenever the print server is restarted, and it will always be ready to receive outside requests for its remote control functions (Figure 6-12). Before installing this service, make sure that you are logged on as PRINTSERVICE.

1. Click the Start button (Figure 6-12).

2. Click the Programs option.
3. Click the VNC option.
4. Click the Administrative Tools option.
5. Click the Install WinVNC Service button. This will bring up the WinVNC Current User Properties window.

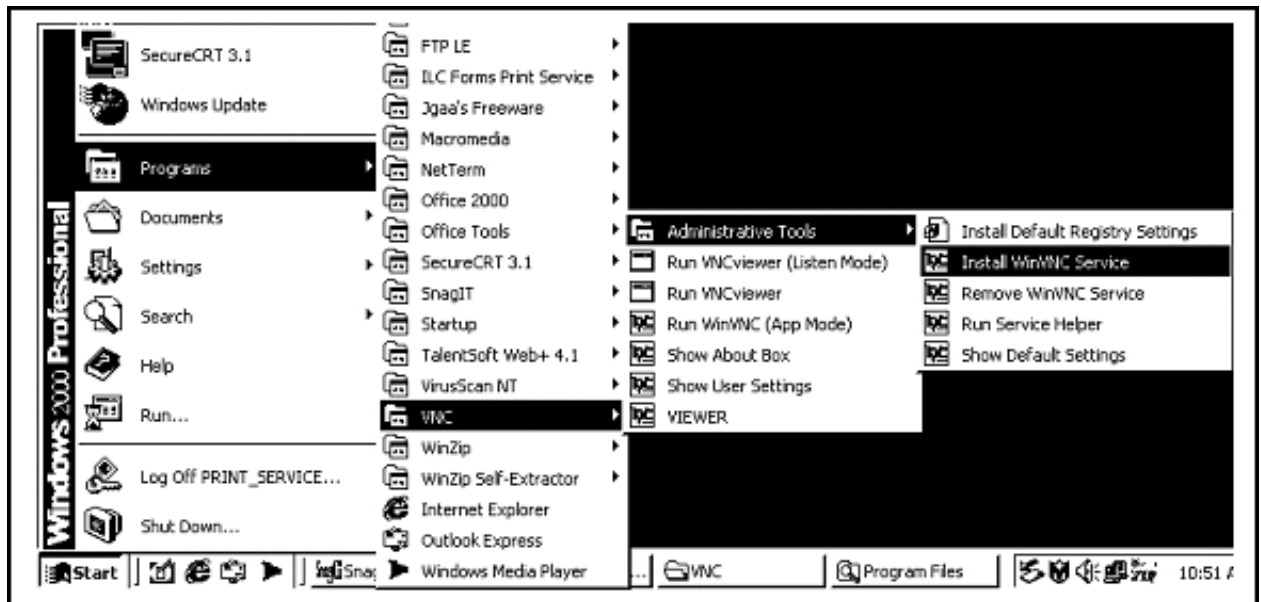


Figure 6-12: Installing VNC As a Service

Configuring The Service

1. Click the Accept Socket Connections check box (Figure 6-13).
2. Click the Auto box to the right of the “Display Number” field.
3. Enter the password that will be required of any user who attempts to access the server remotely through the VNC software.
4. Click the Poll Foreground Window check box.
5. Click the Poll Console Windows Only check box.
6. Click the OK button.

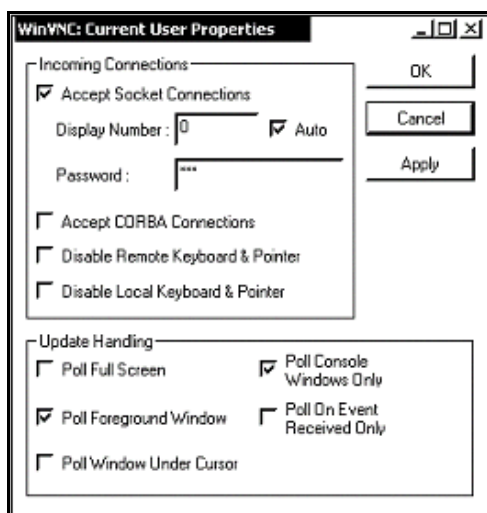


Figure 6-13: Configuring the VNC Services

6.1.4.5 Add the File Compression Application

In some cases, files will be loaded on to the print server in compressed format. The most common compression format is “ZIP”. WinZip is a freeware utility that is useful for compressing/decompressing files that are in the zip compression format. To load WinZip on the print servers, go to the main menu on the PCC+ installation CD. Click the Utils/Docs button, and then select WinZip from the submenu. The WinZip install wizard will appear. Accept the defaults (Figure 6-14).

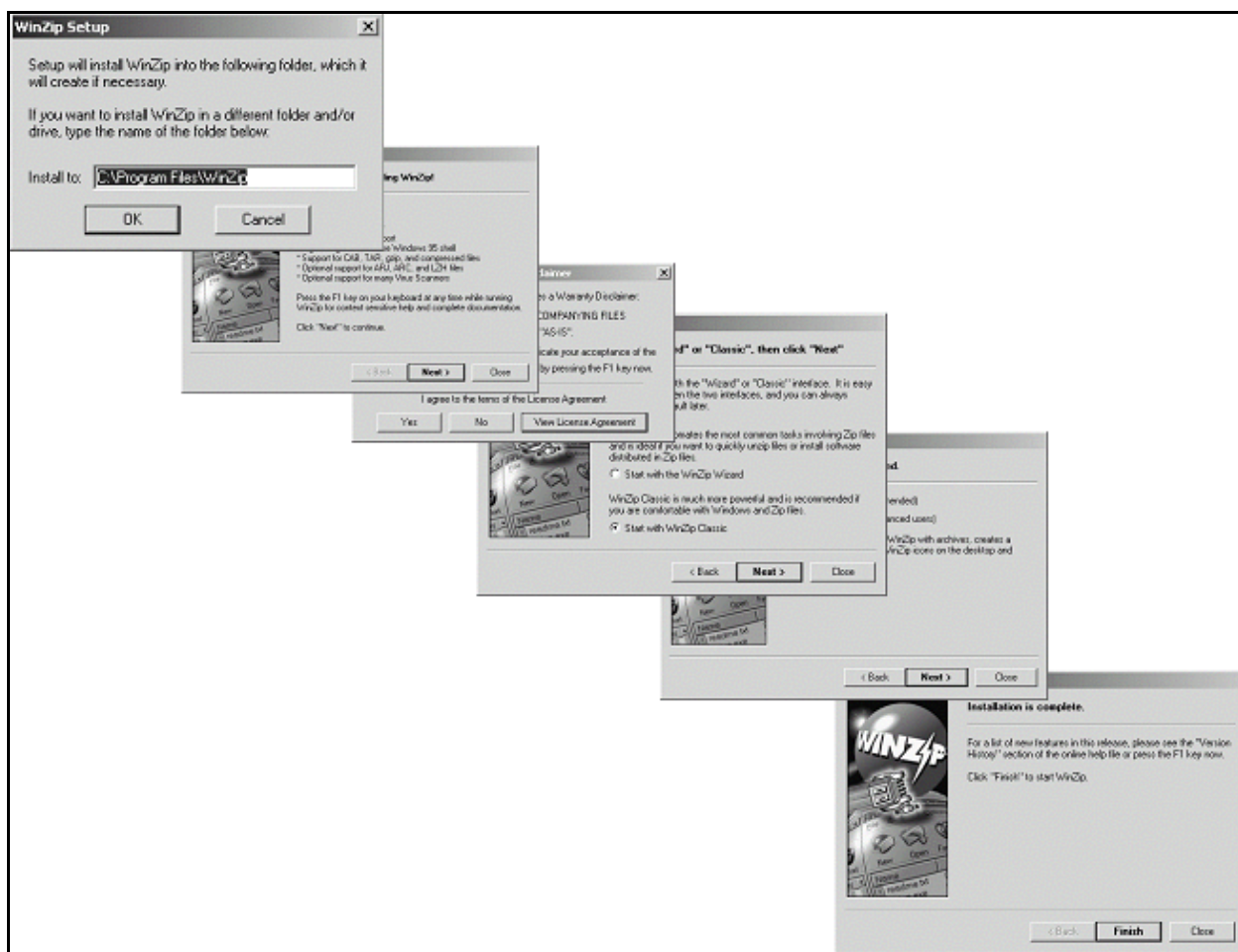


Figure 6-14: Adding the File Compression Application

6.1.4.6 Add the Telnet Application

It is often useful to be able to run a Telnet session on a print server. In this way, the user can access the RPMS server for testing purposes. The PCC+ Install CD contains the NetTerm telnet client or the latest version can be downloaded from the Internet at <http://www.download.com>. To load NetTerm on the print servers, go to the main menu on the PCC+ installation CD. Click the Utils/Docs button, and then select NetTerm from the submenu. The WinZip install wizard will appear. Accept the defaults (Figure 6-15).

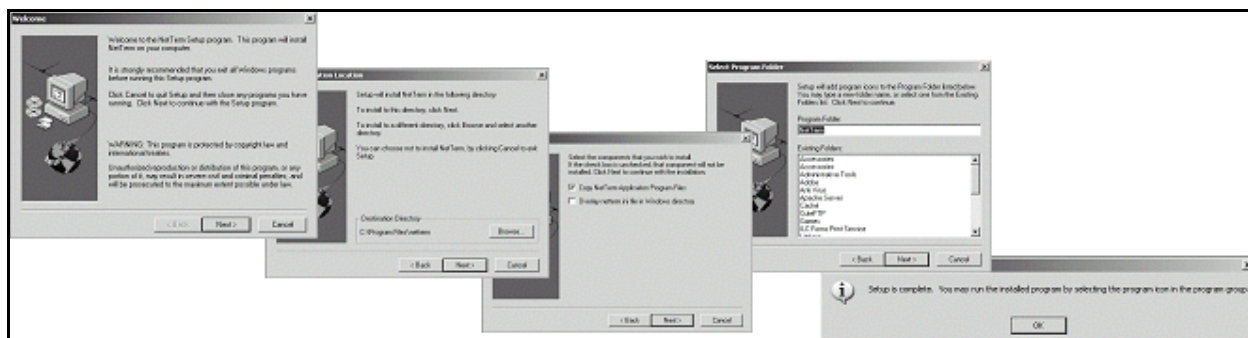


Figure 6-15: Add Telnet Application

6.1.5 Install the PCC+ Print Service

The PCC+ Print Service is a true NT service. It runs in the background whenever the Print Server is booted. It constantly listens for requests from the RPMS server. It manages requests for document generation and system synchronization. It reports errors back to the RPMS server. It is the most critical application on the print server.

To install the PCC+ print service version 1.2, click the Print Service button on the main menu of the PCC+ Install CD and accept the install defaults.

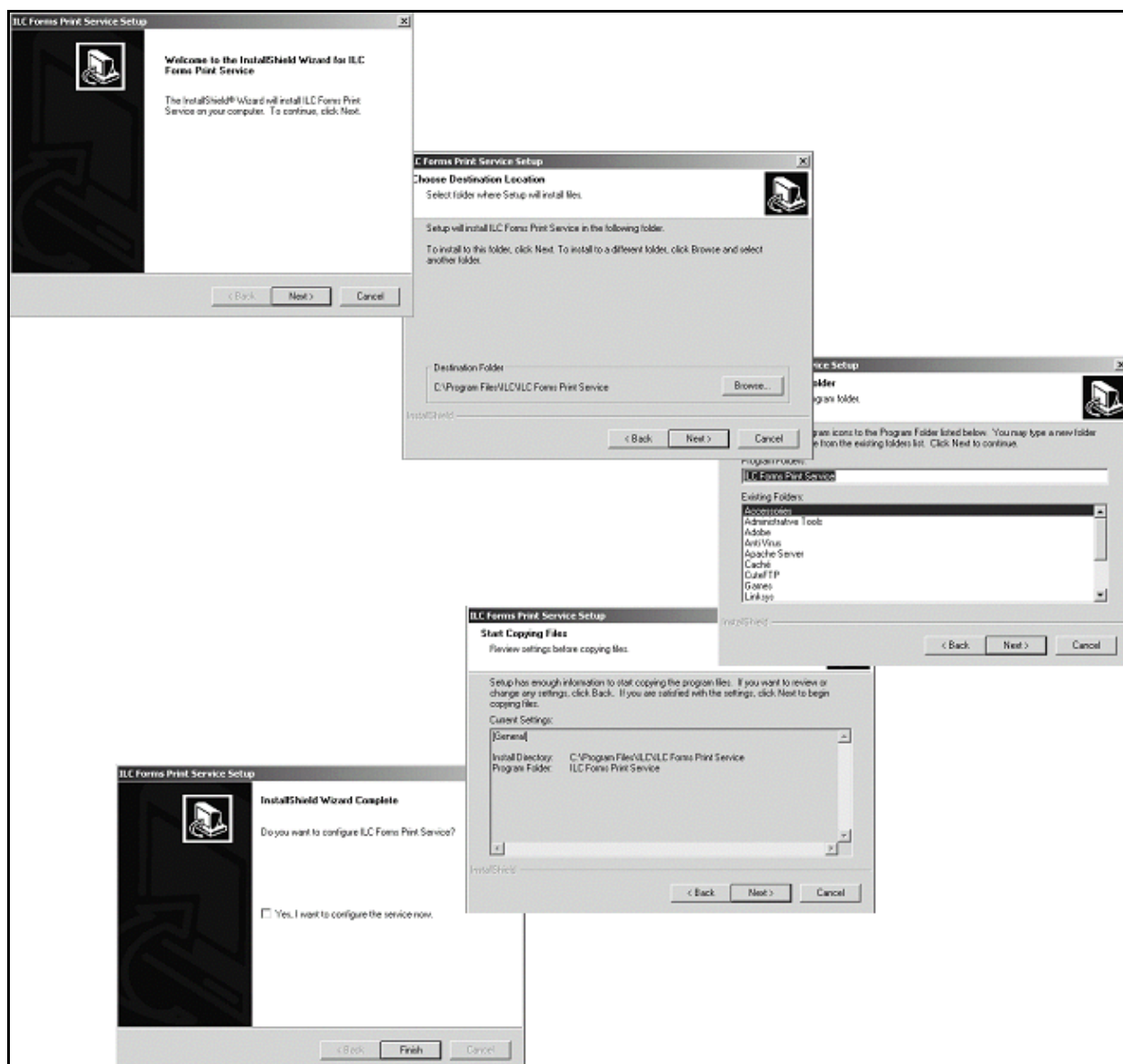


Figure 6-16: Print Service Setup

After the installation is complete a post-installation message will appear. Click the OK button.

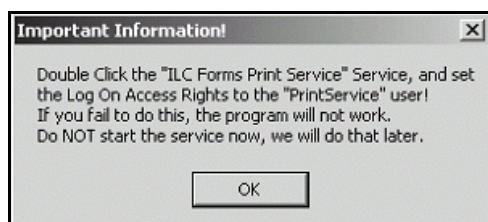


Figure 6-17: Post Installation Message

1. On the Start menu, click Start > Settings > Control Panel > Administrative Tools > Component Services to see the services window.

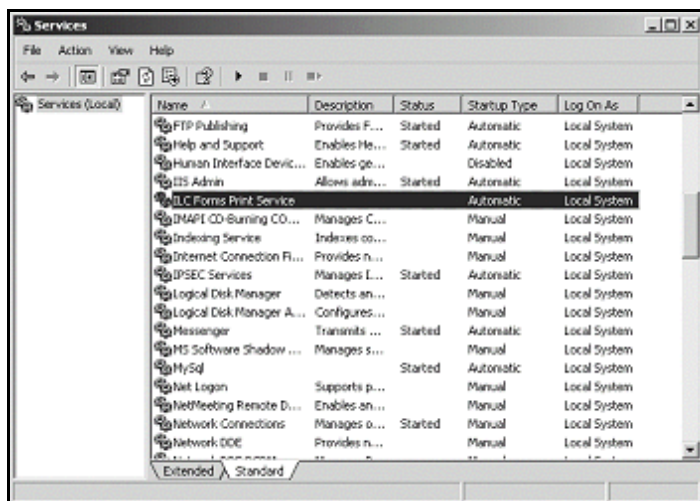


Figure 6-18: Component Service Window

- Right click ILC forms print service and the select Properties. The properties window will appear (Figure 6-19).

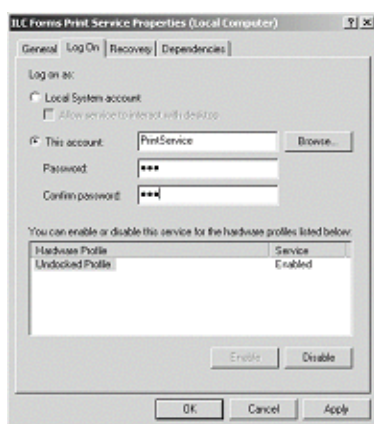


Figure 6-19: Component Service Properties Window

- Select the Log On tab and click the This Account radio button. Enter the name PRINTSERVICE (the user you setup earlier for the print server). Enter that user's password and confirm it. Then click the OK button. This will set the proper permissions for the print service to assure that it will run in the local environment.

- Right click the ILC Forms Print Server and select the Start option.

6.1.6 Configure the Windows Desktop

If you have purchased a pre-configured print server from a PCC+ hardware vendor, you may skip this section. In this section you will learn how to configure the desktop on both print servers. By following these suggestions, you will make it easier to maintain and support PCC+. Remember, all of these suggestions must be applied to BOTH print servers.

Keep all commonly used utilities and applications on the desktop. This makes it more convenient to manage the system locally or remotely.

1. Right-click-and-hold on the item and, while holding the right mouse button down, drag the item to a convenient place on the desktop. Release the right key. A drop down menu will appear.
2. Select the Create Shortcut Here option.

Repeat these instructions for the seven items in the following list.

Application / Utility	Original Location
Event Viewer	Start > Programs > Administrative Tools > Event Viewer
Excel	Start > Programs > WS_FTP > [Microsoft Excel ICON]
Forms Service Configuration	c:\ProgramFiles\ILC\ILC Forms Print Service\IlcPrintSvcCfg.exe
Printers	Start > Settings > Control Panel > [Printers ICON]
Services	Start > Programs > Administrative Tools > Services
Word	Start > Programs > WS_FTP > [Microsoft Word ICON]
WS_FTP	Start > Programs > WS_FTP > [FTP ICON]



Make sure the date and time is set properly in Windows. The time should be set up for the local time zone where the system is being installed. Double check the date.

When you are viewing directories, you should see them in “detail” view.

With an explorer window open (e.g., My Computer, My Documents, etc.), click on Tools > Options > View tab. Click the boxes to view full path in the address and title bars and uncheck the box to hide file extensions. Back out and click the box to apply changes to all folders.

6.1.7 Add Printers to Network

The next step is to add the Encounter Form printers to the network. This is a delicate process and should only be attempted when you are not distracted by other tasks.

There are two kinds of network printers:

1. Indirectly Shared Printers are attached to the network through a host PC; i.e., the printer is attached to the PC via printer cable and the PC is attached to the LAN via network card. **We strongly recommend that you do not use indirectly shared printers with PCC+.**
2. TCP/IP Printers are devices directly connected to the Local Area Network (i.e., they possess their own network cards and connections).

Each type requires its own installation process, but both begin in the same way.

1. Double click the My Computer desktop icon.
2. Double click the Control Panel option.
3. Double click the Printers option.
4. Double click the Add Printer option and proceed as follows.

6.1.7.1 How to Add an Indirectly Shared Printer

Remember, the use of shared printers is **not recommended** for PCC+. Shared printers should only be used if there is no other option. From the Add Printer Wizard window welcome screen (Figure 6-20):

1. Click the Next button.
2. Click the Local option (even though a network printer is being added). Click the Next button.
3. Click the Create A New Port: option and Click the Local Port option from the “Type” dropdown list. Click the Next button.
4. Type the port name in \\NetBiosName\PrinterPortName format at the “Enter a port name:” prompt and click the OK button.

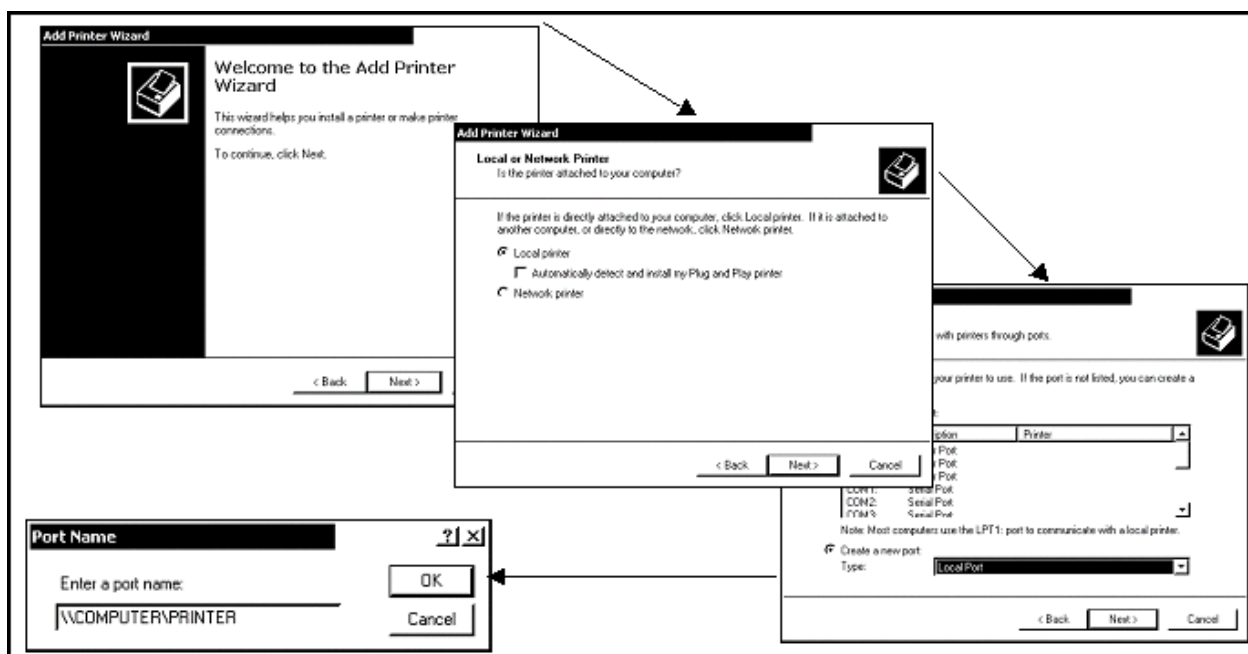


Figure 6-20: Adding an Indirectly Shared Printer, Steps 1-4

5. Select a manufacturer and a model for your printer. Click the Next button (Figure 6-21).

6. Name the printer using the convention SITENAME_PRINTERNAME (e.g., BBC_DENTAL) in the “Printer name:” field.
7. Click the No check box at the “Do you want your Windows-based programs to use this printer as the default printer?” prompt unless you want this to be the default printer for the local server.
8. Click the Next button.
9. Select the Keep Existing Driver option (if possible) at the “Do you want to keep the existing driver or choose a new one?” prompt. Click the Next button.

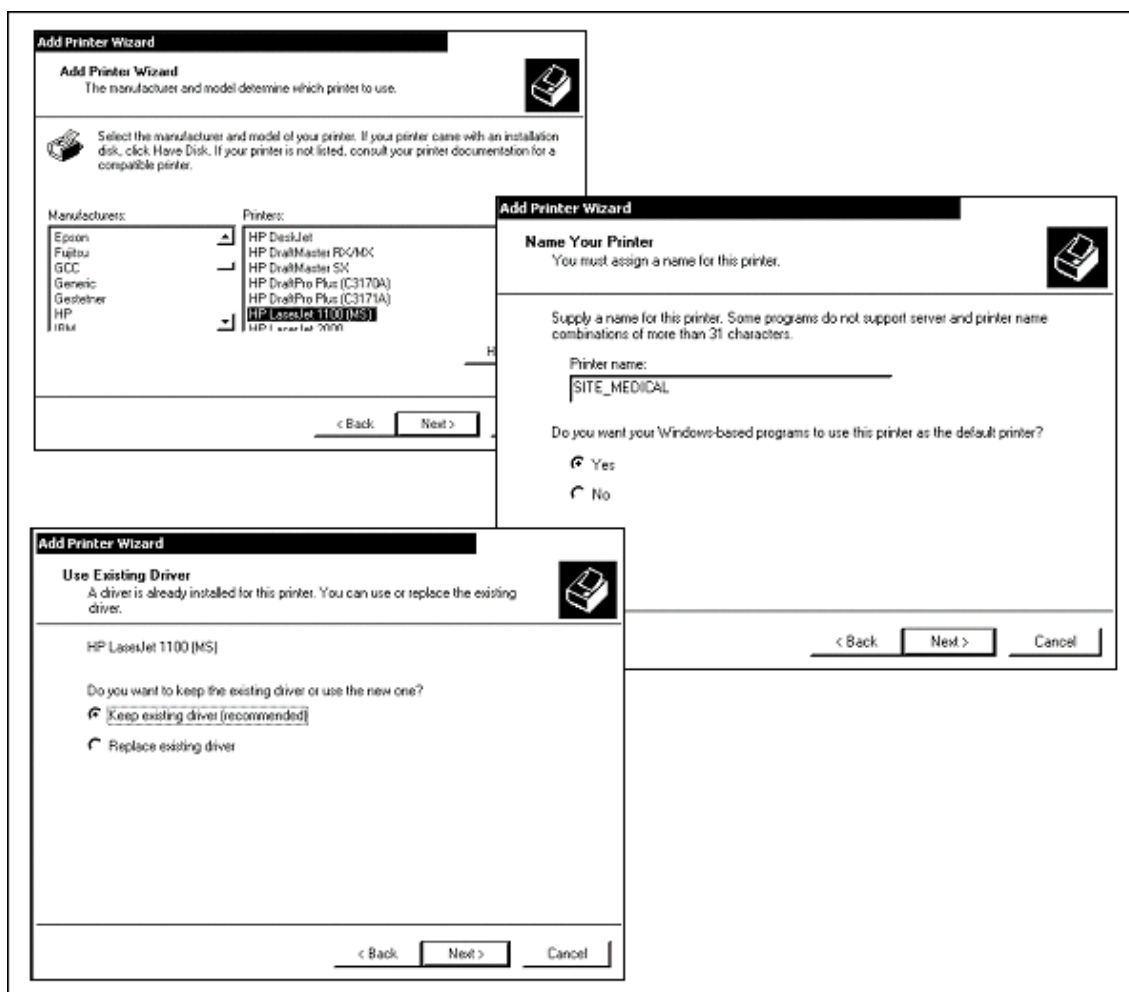


Figure 6-21: Adding an Indirectly Shared Printer, Steps 5-9

10. Click the Do Not Share This Printer option (The printer will still be available) and click the Next button (Figure 6-22).
11. Click the Yes option at the “Do you want to print a test page?” prompt.
12. Click the Finish button.

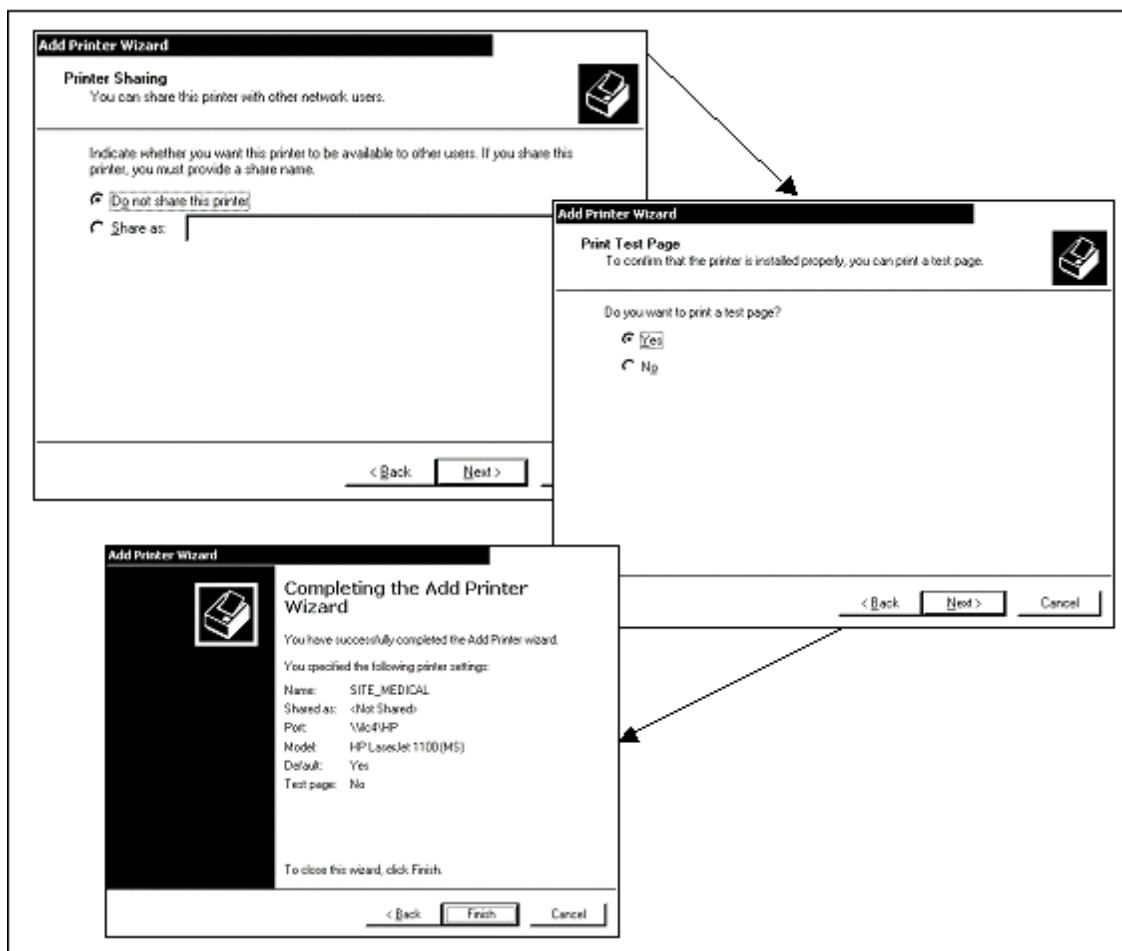


Figure 6-22: Adding an Indirectly Shared Printer, Steps 10-12

6.1.7.2 How to Add a TCP/IP Printer

Follow these instructions to install a stand-alone printer that contains its own network card and is not directly attached to the computer. **This is the preferred configuration for PCC+.**

1. Click the Next button on the welcome screen (Figure 6-23).
2. Click the Local option even though you are adding a network printer, and click the Next button.
3. Uncheck the Automatically Detect and Install my Plug and Play Printer checkbox.

Warning: The Automatically Detect and Install my Plug and Play Printer checkbox must be **unchecked** for this installation to work properly.

4. Click the Create A New Port option and select the Standard TCP/IP Port from the “Type” dropdown list. Click the Next button. The TCP/IP Printer Port Wizard window will open.

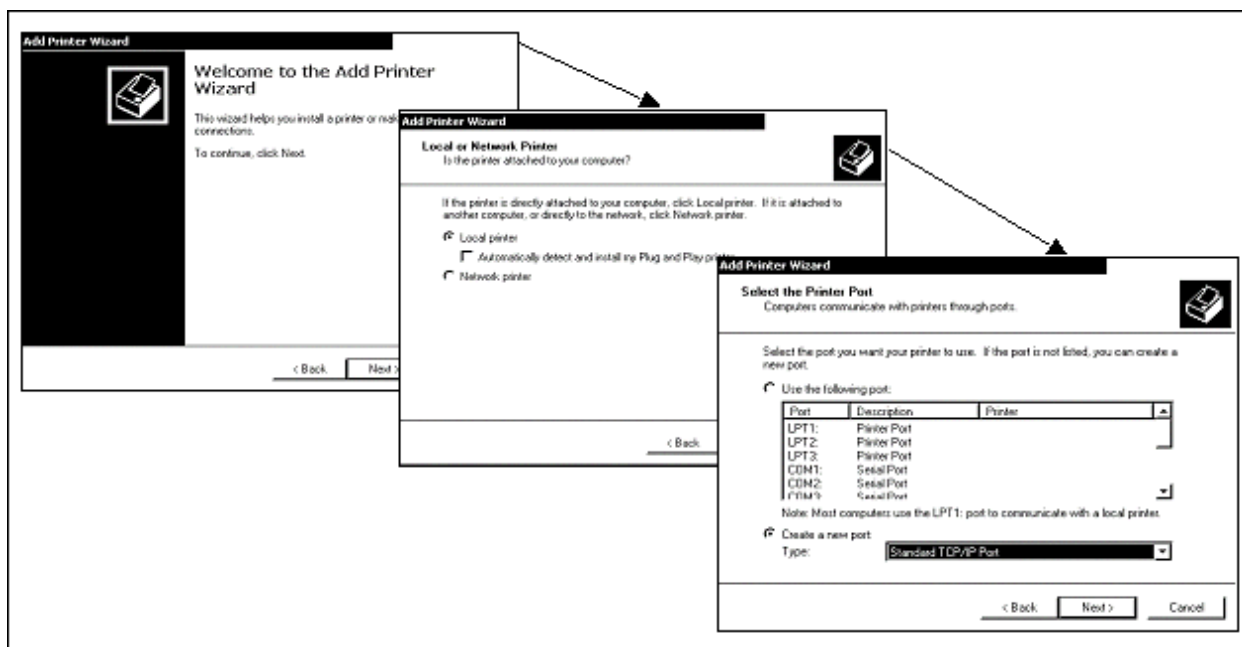


Figure 6-23: Adding a TCP/IP Printer, Steps 1-3

5. Click the Next button on the TCP/IP Printer Port Wizard window.
6. Type an unused IP address from your LAN in the “Printer Name or IP Address:” field. In the “Port Name:” field, type the Computer Name/Printer Name. (This field may be filled in automatically) Click the Next button.

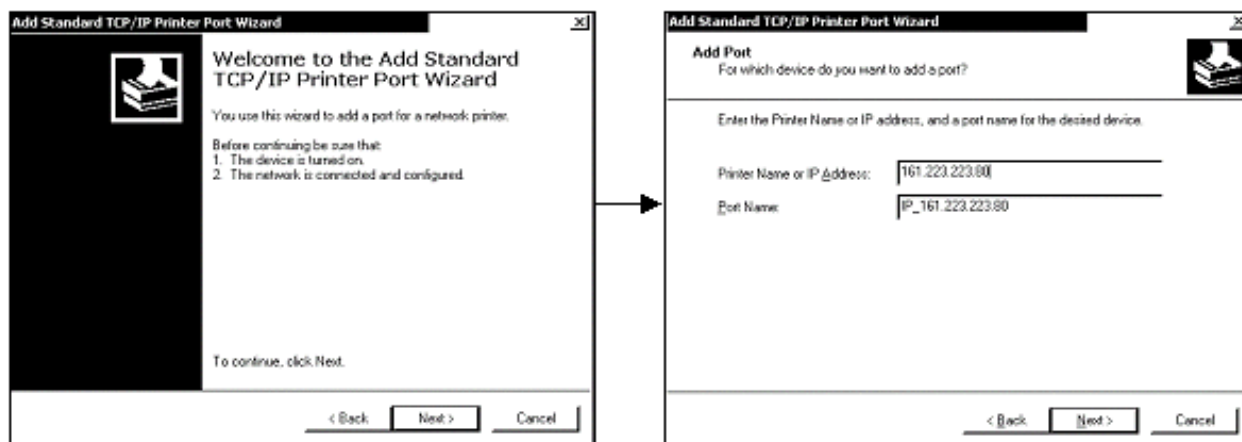


Figure 6-24: Adding a TCP/IP Printer, Steps 4-5

7. Select the manufacturer and model of the printer. Click the Next button.
8. Select the Keep Existing Driver option (if possible) at the “Do you want to keep the existing drive or choose a new one?” prompt. Click the Next button (Figure 6-25).
9. Name the printer using the convention sitename_printername (e.g., BBC_DENTAL) in the “Printer name:” field. Click the No check box at the “Do

you want your Windows-based programs to use this printer as the default printer?” prompt unless you want this to be the default printer for the local server. Click the Next button.

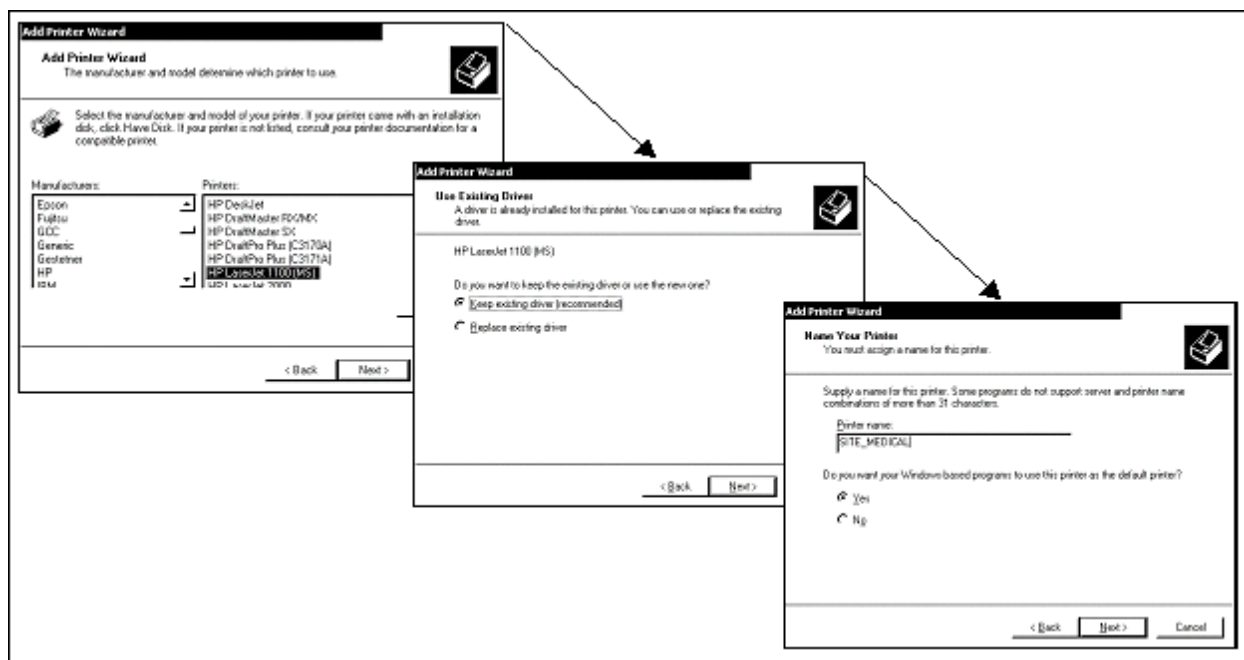


Figure 6-25: Adding a TCP/IP Printer, Steps 6-8

10. Click the Do Not Share This Printer option (the printer will still be available) and click the Next button (Figure 6-26).
11. Click the Yes option at the “Do you want to print a test page?” prompt.
12. Review the setup info and click the Finish button.

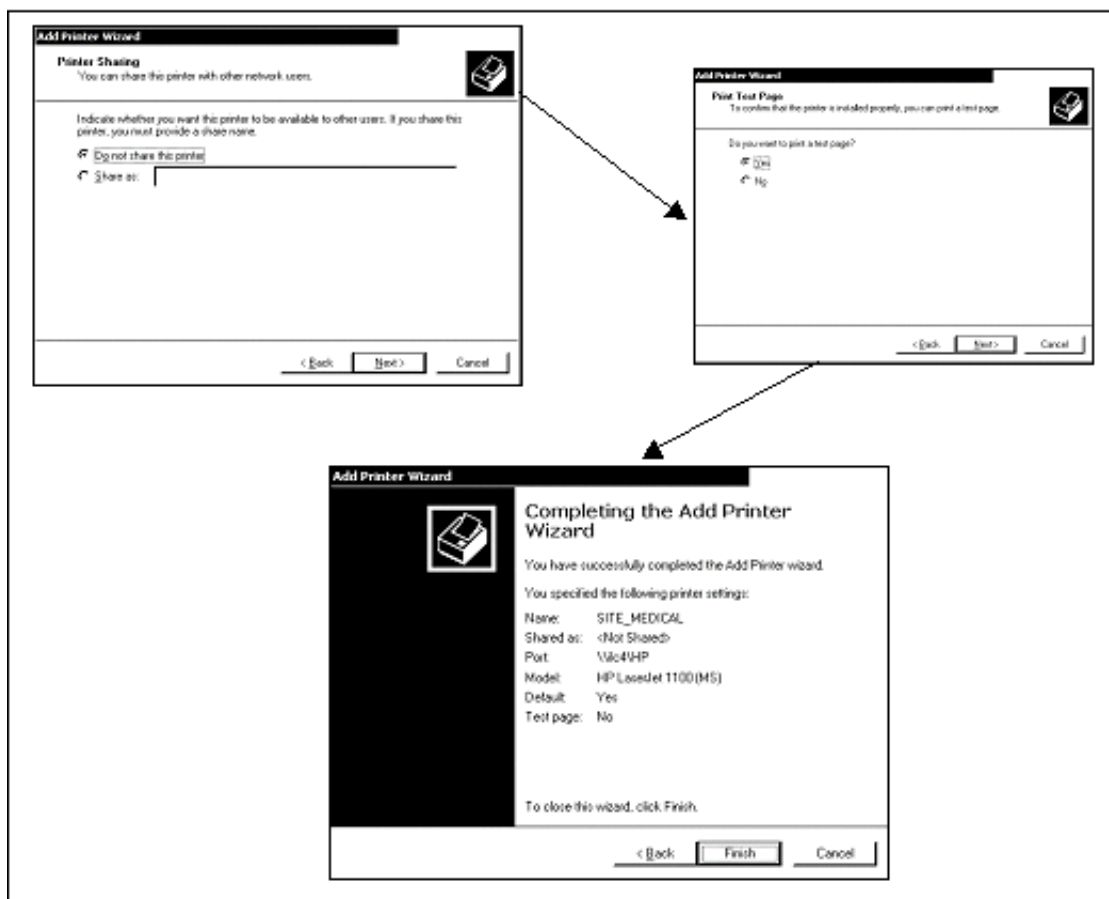


Figure 6-26: Adding a TCP/IP Printer, Steps 9-11

6.2 Configuring the PCC+ Print Service

The print service application will be installed on each Windows 2000[®] print server. The print service is a background task that is automatically initiated whenever Windows 2000[®] is started. The print service monitors a TCP port on the Windows PC, continuously listening for new print jobs as they come across the LAN from the RPMS server. When a new print job appears, the print service automatically runs Word Mail Merge in the background and sends the finished document to the appropriate printer. If there is a problem (e.g., printer out of paper), the print service sends a message back to the RPMS server via the LAN. This message is the relayed to the check-in clerk so that corrective action can be taken.

In section 6.1.1.2, you created the print service manager's account and in section 6.1.7 you added printers to the system. If you have not already done so, log off now and log on as the PRINTSERVICE.

1. Double click the file IlcPrintSvcCfg.exe located in the directory c:\ProgramFiles\ILC\ILC Forms Print Service\. The Print Service Configuration window will appear. It consists of four sections: Printer Management, Directory Management, Socket Settings, and Debug Settings (Figure 6-27).

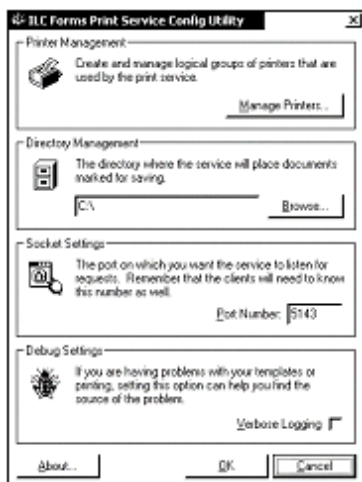


Figure 6-27: Print Service Configuration Window

2. Replace the “c:\” with “c:\ProgramFiles\ILC\ILC Forms Print Service\html\” in the Directory Management section.
3. Type 5143 in the “Port Number:” field in Socket Setting.
4. Click the Verbose Logging check box in the Debug Settings section.

6.2.1 Special Instructions for Novel NetWare Users

Version 1.2 of PCC+ is only certified for NT networks. Users of the Novel NetWare network operating system must use the following workaround.

Give the print server a static IP address on your network as described above. **Do not** use either the Windows version or Novell's version of Novell Client on the print server. All printers must be installed either as TCP or Windows Shared. Use the following procedures to add a printer.

6.2.1.1 Adding TCP Printers

(Stand-alone printers directly connected to the network via their own NIC card)

1. Click the Start button.
2. Click the Settings option.
3. Click the Printers option.
4. Click the Add Printer icon and click the Next button.
5. Select the Local Printer option and click the Next button.
6. Select the Create a Port option.

7. From the drop down box, select the Standard TCP/IP Port option and click the Next button.
8. Type in an IP Address in the “Printer Name or IP Address” box and click the Next button.
9. Select the Manufacture Left Window and the Model Right Window and click the Next button.
10. Type the printer name in the Printer Name box; for example, type HP_MEDICAL_RECORDS.
11. Click the Do Not Share Printer option.
12. Select the Yes option at the “Do you wish to print a test page” prompt and print a test page by clicking the Next button.
13. Click the Finish button to close the wizard. The TCP/IP Printer is installed.

6.2.1.2 Adding Shared Printers

(Printers attached to a network-enabled PC via a parallel cable)

1. Click the Start button.
2. Click the Settings option.
3. Click the Printers option.
4. Click the Add Printer icon and click the Next button.
5. Select the Local Printer option and click the Next button.
6. Select the Create a Port option.
7. From the drop down box, select the Local Port option and click the Next button.
8. Type in a port name in the “Enter Port Name” field; for example, you would type “\\computer_name\printer_share_name”. Click the Next button.
9. Select the Manufacture Left Window and the Model Right Window. Click the Next button.
10. Type the printer name in the “Printer Name” field; for example, you would type HP_MEDICAL_RECORDS.
11. Select the Do Not Share The Printer option.

12. Select the Yes option at the “Do you wish to print a test page?” prompt and print a test page by clicking the Next button.
13. Click the Finish button to close the wizard. The Shared Printer is installed.

6.2.2 Define Print Groups

If the destination printer is offline or out of paper, the print service is capable of rerouting the print job to a hierarchy of backup printers located in the general vicinity of the primary printer. The primary printer and its associated back up printers constitute a print group.

Each print group consists of at least one printer. That printer must be available over the LAN as a TCP/IP printer or a shared printer attached to a workstation on the LAN. The name of the print group and its associated printer(s) are registered in the print service configuration window.

A complete description of how to define the print groups will appear below. For now, just write these print groups on paper. The convention for naming a print group is:

facility_department; e.g., BBC_Medical.

Printers should have some site/function-specific name; e.g., “peds01” is preferred over “laserjet01”.

6.2.3 Add Print Groups

The first step here is to add print groups. The first print group added should always be assigned to the Medical Records Department. Then create at least one print group to each clinical area where PCC+ will be utilized.

1. Click the New Group button. The New Group Properties window will appear (Figure 6-28).

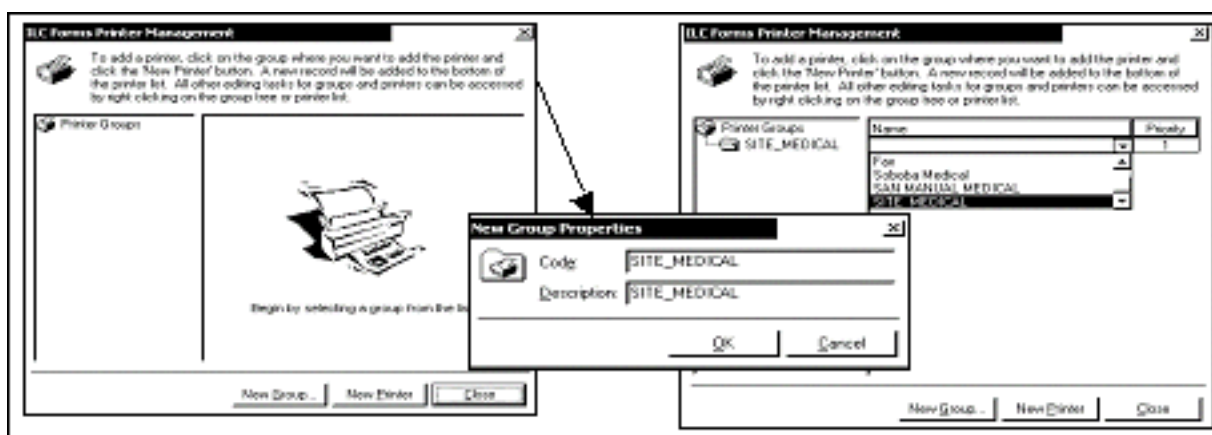


Figure 6-28: Configuring the Print Service

2. Type the new group name in both the Code: and Description: fields and click the OK button. The newly added printer group will appear in the window on the list to the left.
3. Highlight the Print Group option in the left pane and click the New Printer button. A list of available printers will drop down.
4. Select the printers you want to include in the group. It will be added to the bottom of the printer list. If you do not see the printer you want in the dropdown list, it has not been added to the system or the printer's permissions have not been properly set.
5. All other editing tasks (deleting, renaming, etc.) can be accessed by right clicking the print group name in the list.

6.2.4 Assign Users

Next, the print service must be assigned to a user (Figure 6-29).

1. On the Start bar, click the Start button > Settings > Control Panel > Administrative Tools.
2. Click the Services option.
3. Double click the ILC Forms Print option. The ILC Forms Print Service Properties window will open. Click the Log On tab.
4. Click the This Account option. The circle will fill in when selected. Click the Browse button.
5. Select the PRINTSERVICE option from the dropdown menu to enter it at the "This account:" prompt.
6. Type the user's password in the "Password:" field and retype the password in the "Confirm password:" field. Click the OK button.
7. Stop and restart the print service to complete the transaction.
 - Highlight the ILC Forms Print Service option in the Services window.
 - Click the tape player stop icon at the top of the screen to stop the ILC Forms Print Service.
 - Click the tape player play icon at the top of the screen to restart the ILC Forms Print Service.

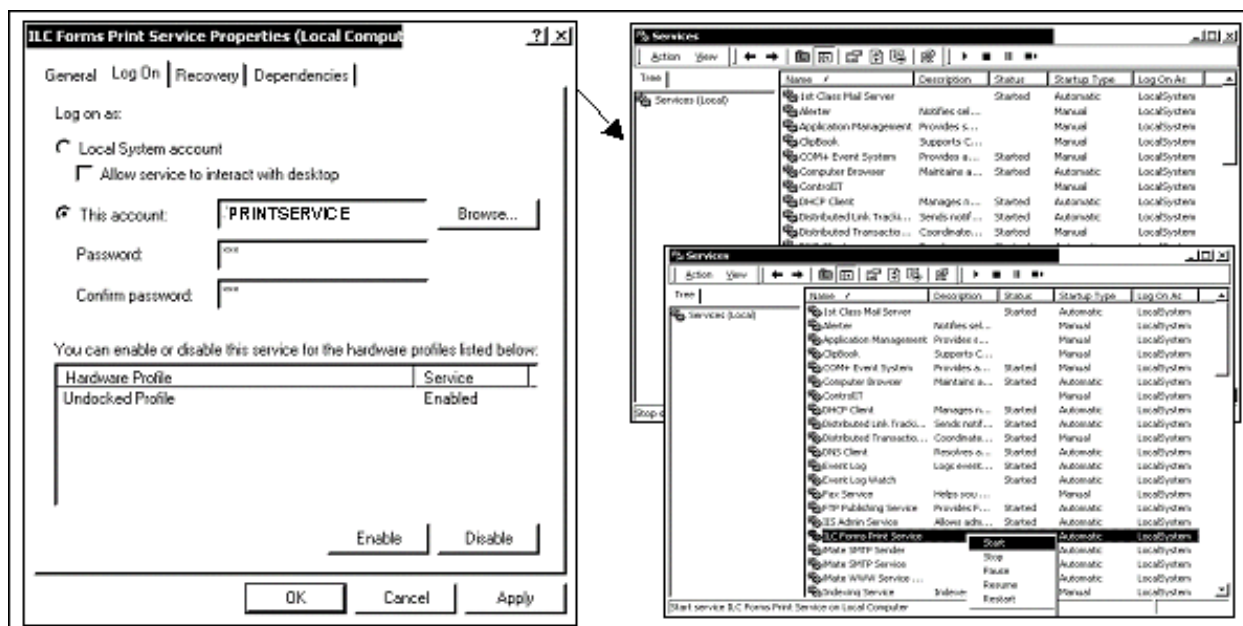


Figure 6-29: Assign Users

6.2.5 Create PCC+ Directories

You may need to install the following directories on both print servers:

- c:\program files\ilc\ilc forms print service\html\ may hold images health summaries
- c:\program files\ilc\ilc forms print service\other templates\ may hold templates that are not actively being used

6.2.6 Install Encounter Form And Health Summary Templates

Make sure that the following templates are in the template folder of both print servers:

- ef_header.txt Encounter form header file
- hs_header.txt Health summary header file
- template info.dot Form for entering template information
- hs2_template.doc Health summary template
- og_template.doc Outguide template
- og_template_info.doc Outguide template companion file
- ambcare_template.doc Ambulatory care encounter form (IHS national form)
- ambcare_template_info.doc Ambulatory care encounter form companion file
- ww_template.doc Well woman encounter form (IHS national form)
- ww_template_info.doc Well woman encounter form companion file

Note: The header files are named differently on the RPMS and the Print servers. All other files will be named identically on both servers. The header files should be named ef_header.txt and hs_header.txt on the print server and efheader.txt and hsheader.txt on the RMPS server.

Other templates may be present, but if they are not being actively used, they should be put in the \other templates\ folder.

Also, be sure that you are using the current version of hs2_template.doc. Open this document. Highlight the field “S101”. If the font is “Courier New” or “Courier” you have the latest version. If some other font is used (e.g., “New Times Roman”), you must obtain the latest version of this file from ITSC support personnel.

6.2.7 Generate Descriptor Files

During the initial release of PCC+, some users reported difficulty synchronizing Encounter Form template information stored on the print servers and the template and the RPMS server. Other users had problems with template validity and sharing. To prevent these problems, PCC+ now requires template descriptor files; i.e., each template should now be accompanied by a companion metafile that defines the contents of its associated template. These descriptor files are used by PCC+ to automatically validate and synchronize all templates registered on the RPMS and print servers. In most cases the descriptor files will have already been loaded into the “c:\program files\ilc\ilc forms print service\templates” folder. The rest of this section tells you what to do if the descriptor files are not present or if you are adding a new template to the templates folder.

A new utility, the Descriptor File Generator (DFG), is used to create each descriptor file. The DFG is actually a special Word-based data input form with built in macros and pre-defined fields. Whenever a new template is developed or imported, the site manager should call up the DFG and generate a companion descriptor file. This new utility was not available with PCC+ V 1.1.

On each print server, three steps are required for installation: reset macro security, install the form generator, and create descriptor files.

Check/Reset the Macro Security Level of Word 2000

1. Open Word 2000®.
2. Click the Tools option on the Menu Bar.
3. Click the Macro option.
4. Click the Security option.
5. Make sure the security level is set to medium. It must NOT be set to high.

Install the Descriptor Form

If the DFG is not present in the templates folder, you will need to copy it there now.

1. Find the file Template info.dot in the release. Copy this file to the folder c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\.
2. Create a shortcut to this file, and place the shortcut icon on the desktop.

**Create descriptor files**

A complete description of the descriptor file generator can be found in the PCC+ technical manual version 1.2. Open the template info.dot file and follow the directions printed on the form. Repeat this process for all templates on both print servers. When you are finished, the \templates\ directory on both print servers will contain the following files:

- ambcare_template.doc
- ambcare_template_info.txt
- ww_template.doc
- ww_template_info.txt
- og_template.doc
- og_template_info.txt
- hs2_template.doc
- hs_header.txt
- ef_header.txt
- template info.dot

6.2.8 Add IP Addresses to the FTP Client

On each print server, open the FTP client and add the following IP addresses to the address book:

- The IP address of the other print server
- The IP address of the RPMS server located at your site

6.3 Performing Clinical Data Preparations

To avoid potential installation problems, write the answers to the questions below on a piece of paper. This will give you time to do research and planning before configuring the application.

Tip: This section can be completed concurrently with the print server installations, reducing the overall setup time for a virgin PCC+ installation.

Warning: Failure to perform this step will result in a greatly increased installation/ setup time and may result in the RPMS and Print servers **failing to synchronize**.

6.3.1 Create a Facility Short Name

Invent a short name for your facility and write it down. This name will be used throughout the installation process. (For this manual, we will use a fictitious facility, the Buffalo Breath Clinic. Its short name is BBC.) Adhere to the following rules:

- The name should be less than ten characters in length
- It may contain spaces
- It may not contain punctuation
- If the facility already has a short name, use it (e.g., CROW, SELLS, LAME DEER, etc.).
- If the facility has a long name, use the obvious acronym (e.g., the Phoenix Indian Medical Center would be named PIMC).

Our Facilities Short Name: _____

6.3.2 Name the PCC+ Clinics

Make a list of the clinics that will be using the new Encounter Form. Apply any names that seem appropriate (e.g., walk-in clinic, dental clinic, post-partum clinic, diabetes clinic, etc.).

Each of these clinics must be associated with an official PCC clinic stop name found in the Clinic Stop file. (e.g., the Prosthesis clinic may be associated with the “official” clinic stop called Orthopedics.) To view the official clinic stop names, do a FileMan Inquire on the Clinic Stop file (Figure 6-30).

```

OUTPUT FROM WHAT FILE: CLINIC STOP//
Select CLINIC STOP NAME: ??
Choose from:
  AUDIOLOGY          35
  CANCER CHEMOTHERAPY      62
  CANCER SCREENING      58
  CARDIAC             02
  CAST ROOM           55
  CHART REVIEW/RECORD MOD    52
  CHEST/TB           03
  CHRONIC DISEASE       50
'^' TO STOP:

```

Figure 6-30: Clinic Stop File Showing PCC Department Names And Numbers

Next to each one of the invented clinic names, write down the name and number of the associated clinic stop (Figure 6-31).

Note that the clinic name and the clinic stop name may be identical. Also note that more than one clinic name can be associated with a single clinic stop, but only one clinic stop can be associated with a single clinic name.

Clinic Names at our Facility		
Invented Name	PCC Department Name	Number
WALK-IN CLINIC	GENERAL	(01)
APPOINTMENT CLINIC	FAMILY PRACTICE	(28)
DENTAL CLINIC	DENTAL	(56)
WELL CHILD CLINIC	PEDIATRIC	(20)
LACTATION CLINIC	GYNECOLOGY	(10)

Figure 6-31: Example of Making A List Of Clinics Using The Encounter Form

Clinic Names at our Facility		
Invented Name	PCC Department Name	Number

Figure 6-32: Clinic List Worksheet for Your Site

6.3.3 Name the Generic Provider

PCC+ contains elements that can be customized for each provider. Occasionally, when the Encounter Form is requested during the patient check in process, the clerk does not know who the primary provider will be for that visit. Since the form will not print unless a provider is designated, the clerk must select the “generic provider.” The

generic provider has ICD9 and CPT preferences that are close to, but not necessarily the same as, those of the actual provider who is using the form. The generic provider *does not* have access/verify codes, menu preferences or any other typical user preferences/characteristics defined in file 200.

Each facility must have at least one primary generic provider. When entering this name into RPMS, it should be in the format: brief name,provider (e.g., BBC,PROVIDER). In addition, there may be other generic providers created for different clinic settings. For example, if you have a pediatric clinic, you may want to create a generic pediatric provider. At Buffalo Breath Clinic, this provider would be called BBC,PEDIATRICIAN. Others could be BBC,DENTIST or BBC,INTERNIST or BBC,FAMILY DOC, etc.

Think about the clinics that you identified above. Write down the name of the associated generic provider(s) (Figure 6-33).

NOTE: A generic provider is not a real provider; it is a placeholder name that exists in files 200 and 16. The preferences of the generic provider are used in the new encounter form whenever the real provider is unknown at the time the encounter form is generated.

Generic Provider Names	
Invented Name	Generic Provider
WALK-IN CLINIC	BBC,PROVIDER
APPOINTMENT CLINIC	BBC,FAMILY DOC
DENTAL CLINIC	BBC,DENTIST
WELL CHILD CLINIC	BBC,PEDITRICIAN
LACTATION CLINIC	(GYNECOLOGY 10)

Figure 6-33: Sample Chart of Generic Provider Names

Generic Provider Names	
Invented Name	Generic Provider

Figure 6-34: Generic Provider Worksheet for Your Site

6.3.4 Identify Demo Patients

For test and setup purposes, identify at least two demo patients, one adult and one child. If these patients do not exist they will need to be added later. The recommended names are DEMO,ADULT and DEMO,CHILD. Make the last name “DEMO”, not “DOE”, “SMITH”, etc.

Demo Patient Names

Figure 6-35: Demo Patient Worksheet for Your Site

6.3.5 Determine Health Summary Types

PCC+ converts a character based health summary to a GUI format (including fonts, shading, and footers) that can be printed with the encounter form on a laser printer. Several health summary types are currently being used in RPMS. Determine which of these formats are being used at your facility and write the names down.

Health Summary Types We Use

Figure 6-36: Health Summary Types Worksheet for Your Site

6.4 Installing PCC+ On The RPMS Server

6.4.1 Load Routines and Globals²

The following instructions apply to the initial installation of the PCC+ Package (virgin install). All files listed below can be found in the PCC+ Installation CD ROM. Through the FTP prompt, download the ven_0120.z file (NT server) or the ven_0120.gz (UNIX server) file to your RPMS server. If you are installing to an NT server, you must switch your system to binary before you download the ven_0120.z file. To switch your system to binary, type **bi** at the FTP prompt.

² This section was revised 4/18/02. See correction number 2 (section **Error! Reference source not found.**) for more information.

Warning: Not switching to binary for the NT file may corrupt the file and render it useless.

1. Unzip the file using the WinZip program or the gunzip command.
2. Copy the ven_0120.r, ven_0120.g, and hold.hld distribution files onto your RPMS server. If the RPMS server is running the UNIX operating system, these files can be copied into the public directory: /usr/pccplus/. For RPMS servers that run a version of Windows, the files can be copied into the \msm directory.
3. Do a routine restore (^%RR) from the file ven_0120.r. This should restore 32 routines in the namespace VENPCC* plus the 38 init routines (VENI*) for a total of 70 routines (Figure 6-37).

```
>D ^%RR
MSM - Routine Restore Utility

Enter input device <HFS>: <RET> Host File Server
File Name >: C:\msm\ven_0120.r (or /usr/pccplus/ven_0120.r on UNIX)
Routine(s) saved at 12:57 AM 14-SEP-01
Header comment is: PCC+ Ver 1.2 routines and inits
Selective restore? (allows rename) <N>: <RET> NO
Restoring...

VENIN001 VENIN002 VENIN003 VENIN004 VENIN005 VENIN006 VENIN007 VENIN008
VENIN009 VENIN00A VENIN00B VENIN00C VENIN00D VENIN00E VENIN00F VENIN00G
VENIN00H VENIN00I VENIN00J VENIN00K VENIN00L VENIN00M VENIN00N VENIN00O
VENIN00P VENIN00Q VENIN00R VENIN00S VENIN00T VENIN00U VENINIS VENINIT
VENINIT1 VENINIT2 VENINIT3 VENINIT4 VENINIT5 VENPCC VENPCC1 VENPCC1A
VENPCC1B VENPCC1C VENPCC1D VENPCC2 VENPCC3 VENPCCD VENPCCD1 VENPCCG
VENPCCG1 VENPCCG2 VENPCCG3 VENPCCG4 VENPCCM1 VENPCCM2 VENPCCM3 VENPCCM4
VENPCCMC VENPCCMD VENPCCME VENPCCMF VENPCCMI VENPCCML VENPCCMP VENPCCMX
VENPCCOH VENPCCP VENPCCU VENPCCX VENPCCX1

70 Routines restored.
```

Figure 6-37: Restore 70 Routines

4. Set your DUZ(0)="@".

Type S DUZ(0)="@" at the programmer prompt

or

Log in and out of FileMan programmer mode by typing D P^DI at the programmer prompt and pressing the return key to back out of it. This will ensure you have proper file deletion permissions for the pre-init (Figure 6-38).

```
VENPCCOH VENPCCP VENPCCU VENPCCX VENPCCX1

70 Routines restored.

[PRD,DHC]>D P^DI
```

Figure 6-38: Logging In and Out of Programmer Mode

5. Type D ^VENINIT at the next programmers prompt.
6. Type YES at all init questions. The time to complete the init will be approximately one minute.
7. Because this is a first time installation of the package, you must do global restore (^%GR) from the file ven_0120.g. This should restore 1 global with 5 unique first level nodes.

```
[PRD,DHC]>D ^%GR

                MSM - Global Restore Utility
                23-May-02  11:29 AM

Enter input device <HFS>:    <RET>  Host File Server
File Name >: C:\MSM\ven_0120.g (or /usr/pccplus/ven_0120.g)
Open Failed on Device 51 for file C:\ven_0120.g
File Name >: C:\MSM\ven_0120.g (or /usr/pccplus/ven_0120.g)

Global(s) saved at 8:48 AM 30-OCT-01 (MSM format).
Header comment is : PCC+ GLOBALS FOR A VIRGIN INSTALLATION

Selective restore (allows rename) <N>: NO

Restoring...
Global: ^VEN          ... Restored
Global: ^VEN          ... Restored
Global: ^VEN          ... Restored
Global: ^VEN          ... Restored
Global: ^VEN          ... Restored
Restore Complete
[PRD,DHC]>
```

Figure 6-39: Running the Global Restore

8. Run the D ^VENPCCME routine, the PCC+ environment checker, to ensure that all required routines, globals, and files are present (Figure 6-40.). If something is missing, stop and install the missing piece(s) before proceeding.

```

[PRD,DHC]>D ^VENPCCME

Checking computing environment...
  Vendor: MSM
  Operating System: WINDOWS

Checking routines...
  The routine AMBDLCK is either missing or not the current version
You must insert the current version of the PCC before proceeding!

Checking files...
  The file EMPLOYER is missing
  The file POLICY HOLDER is missing
You must obtain the required files before proceeding!

Checking Encounter Form Routines...
All required NEW ENCOUNTER FORM routines seem to be present

Checking Encounter Form Package files...
All required NEW ENCOUNTER FORM files seem to be present

PLEASE MAKE THE REQUIRED CHANGES BEFORE PROCEEDING WITH THE INSTALLATION....

```

Figure 6-40: ^VENPCCME, the PCC+ Environment Checker

6.4.2 Add Generic Users

Using the VA Kernel or VA FileMan, add generic providers to the New Person file. In order to create the generic provider, you must add a fictitious SSN and Sex.

```

VA FileMan 21.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: USER// NEW PERSON          (742 entries)
EDIT WHICH FIELD: ALL// <RET>

Select NEW PERSON NAME: BBC, PROVIDER
  Are you adding 'BBC,PROVIDER' as a new NEW PERSON (THE 743RD)? No//Y
(YES)
Checking SOUNDEX for matches.
No matches found.
  NEW PERSON INITIAL: <RET>
  NEW PERSON MAIL CODE: <RET>
STREET ADDRESS 1: ^SSN
SSN: 987654321
TERMINATION DATE: ^SEX
SEC: F      FEMALE
DOB: ^

Select NEW PERSON NAME:

```

Figure 6-41: Adding a Generic User

If the Encounter Form will be printed in multiple clinics, you may want to create a unique provider for each clinic; e.g., BBC, DENTIST or BBC,PEDIATRICIAN or BBC,FAMILY DOC.

6.5 Configuring the RPMS Server

6.5.1 Create Secure PCC+ Directories

Whether you are upgrading from PCC+ V 1.1 or doing a virgin installation, the next step is to create secure directories on the RPMS server. These directories will hold temporary data files that are produced during the PCC form generation process. The data files may contain confidential patient information and must be kept secure at all times. In some early installations of PCC+ V 1.1, data files may have been stored briefly in a directory that, in some instances, could be accessed by unauthorized users operating within the IHS firewall. This security concern can be remedied by taking the following steps. Note that there are separate sets of instructions for UNIX and NT versions of RPMS.

6.5.1.1 On a Windows NT Server

If you have not already done so, create the following directories on the RPMS Server. From the tool bar, select File > New > Folder.

- C:\PCCPLUS
- C:\PCCPLUS\CODES\
- C:\PCCPLUS\PRINT\
- C:\PCCPLUS\TEMPLATES\
- C:\PCCPLUS\TEMP\

6.5.1.2 On A UNIX Server

Log on as root and enter the following commands to create secure directories on the RPMS server.

- `mkdir -p /usr/pccplus`
- `mkdir -p /usr/pccplus/print`
- `mkdir -p /usr/pccplus/templates`
- `mkdir -p /usr/pccplus/temp`
- `mkdir -p /usr/pccplus/codes`

You may use the SMIT utility to give users (other than root access) to the /usr/pccplus directory and its descendent directories. If an additional user is given access, issue the following command:

```
chown -R {username} /usr/pccplus
```

Finally, set the permissions for the new directories to enable MSM to access these directories:

```
chmod -R 777 /usr/pccplus
```

6.5.1.3 Copy Header Files to RPMS Server

Copy `hs_header.txt` and `ef_header.txt` to the PCC+ templates folder and rename them, removing the underscores.

Ex. `hs_header.txt` to `hsheader.txt`

`ef_header.txt` to `efheader.txt`

6.5.2 Assign Keys and Menu Options

The next step is to use VA Kernel or VA FileMan to assign keys to all users, including yourself.

1. Assign four keys to yourself and any other user with site management responsibilities: `VENZMENU`, `VENZMGR`, `VENZSCH`, and `VENZPRINT`.
2. Assign the keys `VENZMGR`, `VENZSCH` and `VENZPRINT` to those assisting with the management of the project.
3. Assign the `VENZPRINT` key to all providers and check-in clerks, clinic nurses, and providers who may be requesting PCC+ documents.
4. If you are using the IHS Scheduling package, assign the `VENZSCH` key to all clerks who will be using the Scheduling package check-in process to generate PCC+ forms. Assign the `SDZPCC` key to the site manager responsible for setting up the scheduling clinic for PCC+. ³
5. Assign the `VENMENU` and `VENZCKIN` menus to yourself. The menu `VENMENU` contains three submenus:
 - `VEN_INSTALL` the installation utilities
 - `VEN_MGR` the options for managing the package once it is installed
 - `VEN_PRINT` the options that enable providers and clerks to print health summaries and Encounter Forms
6. Assign the `VEN_MGR` menu to those assisting you with the management of the project.
7. Assign the `VEN_PRINT` menu to all providers and check-in clerks.

³ This list item was revised 6/25/02. See correction number 3 (section **Error! Reference source not found.**) for more information.

The following dialogue demonstrates how to allocate a PCC+ key to a user.

From the System Managers Menu, AKMOEVE or EVE.

```
FM      Core Applications ...
        Device Management ...
        VA FileMan ...
        Manage Mailman ...
        Menu Management ...
        Programmer Options ...
        Operations Management ...
        Spool Management ...
        System Security ...
        Task Manager ...
        Taskman Management ...
        User Management ...
```

Select Systems Manager Menu Option: **MEN**u Management

```
        Edit options
        Key Management ...
        Secure Menu Delegation ...
        Restrict Availability of Options
        Option Access By User
        List Options by Parents and Use
        Build Primary Menu Trees
        Fix Option File Pointers
        Help Processor ...
OPED    Screen-based Option Editor
        Display Menus and Options ...
        Out-Of-Order Set Management ...
        Show Users With Selected Primary or Secondary Menu
```

Select Menu Management Option: **KEY** Management

```
        Allocation of Security Keys
        De-allocation of Security Keys
        Enter/Edit of Security Keys
        All the Keys a User Needs
        Change user's allocated keys to delegated keys
        Delegate keys
        Keys For a Given Menu Tree
        List users holding a certain key
        Remove delegated keys
        Show the keys of a particular user
```

Select Key Management Option: **ALLOCATE**

Allocate key: **VEN**

```
1  VENZCKIN
2  VENZMENU
3  VENZMGR
4  VENZPRINT
5  VENZSCH
```

CHOOSE 1-5: **4**

Another key: **<RET>**

```
Holder of key: SHORR.GREG
Another holder: <RET>
```

```
You've selected the following keys:
VE
```

```
You've sele
SH
```

```
You are allocating keys. Do you wish to proceed? YES// YES
```

Figure 6-42: Allocating PCC+ Keys to Users

The following dialogue demonstrates how to add a PCC+ menu option to an existing menu.

```
Select Systems Manager Menu Option: MENU Management
```

```

    Edit options
    Key Management ...
    Secure Menu Delegation ...
    Restrict Availability
    Option Access By User
    List Options by Parents a
    Build Primary Menu Trees
    Fix Option File Poi
    Help Processor ...
    OPED  Screen-based Option Editor
    Display Menus and Options ...
    Out-Of-Order Set Management ...
```

```
Se
```

```
Select OPTION to edit:
```

```
NAME: IHS CORE Menu //
```

```
MENU TEXT
```

```
PACKAGE:
```

```
OUT OF
```

```
LOCK:
```

```
REVERSE/NEGAT
```

```
DESCRIPTION:
```

```
  1>This is t
```

```
EDIT Option:
```

```
TYPE: me
```

```
HEADER:
```

```
ENTRY ACTION
```

```
EXIT ACTION:
```

```
Select ITEM: XUTM MGR// VEN PRINT
```

```

  1  VEN PRINT ALL           Print Encounter Form, Health
  2  VEN PRINT CHECKIN LIST   Print checkin list
  3  VEN PRINT DEMO           Print Demo (for learning only)
  4  VEN PRINT ENCOUNTER FORM Print Encounter Form
```

```
TYPE '^' TO STOP, OR
```

```
CHOOSE 1-5: 1
```

```
Are you adding 'VEN PRINT ALL' as a new MENU (the 17TH for this OPTION)?
```

```
YES
```

Figure 6-43: Adding a PCC+ Menu Option To an Existing Menu

6.5.3 Add/Edit Print Groups

In the initial installation, there must be at least one print group registered on the RPMS server. We recommend that the first print group be assigned to the medical records department. Multiple clinic stops can use the same printer group.

Print groups must be synchronized on both the RPMS and print servers. Version 1.2 contains a new utility that manages the synchronization. Before calling this utility, the new print group must be registered on the print service of both print servers (Figure 6-44). To use this utility, select the INS option from the VENMENU.

```
ILC ENC FORM/HLTH SUMMARY V1.2:  Installation Utilities
LOCATION:  CROW HO                      USER:  CHAPEK, JADE A
-----
AEEF    Add/edit encounter form
AEPG    Add/edit print group
VEGD    View EF genl. descriptions
VETD    EF tech description
VPG     List print groups
CHK     Check PCC+ environment
CSC     Comprehensive system check
HS      Synchronize header files
PGS     Synchronize print groups
QCK     Check Queue Type file
SS      Create Scheduling Pkg link
TS      Synchronize templates

Select Installation Utilities Option: AEPG

Enter the name of the Print Group: PSYCH
One moment please...

PSYCH  has not been regestered on the RPMS server yet!
Do you want to do this now? YES// YES
PSYCH has been entered on the RPMS Server!!
Is this Print Group located in the Medical Records Department? NO
Done!
```

Figure 6-44: Adding a Print Group

6.5.4 Edit the PCC+ Configuration File

This section provides step-by-step instructions on how to update the configuration file. The information stored in this file has a profound effect on the overall performance of the PCC+ application.

In most cases this file will only have one entry, the primary configuration entry. However, some sites may choose to have secondary configurations for testing or other purposes.

Name the primary configuration. Usually this name is the location followed by the words "PRIMARY CONFIGURATION" (for example, BBS PRIMARY CONFIGURATION). At some sites the configuration name may be based on the operating systems installed on the RPMS server and print server; e.g., "UNIX AND WINDOWS 2000"

The following table (Figure 6-45) summarizes the rest of fields in the VEN EHP CONFIGURATION file.

FIELD	DATA TYPE	INSTRUCTIONS
CHART NO IS DFN	YES/NO	In virtually all cases the answer will be 'NO'. However, if the chart number is the same as the DFN (FileMan's internal entry number for a patient) answer "YES".
TYPE	Type ?? to see choices	Always answer 'IHS'.
OPERATING SYSTEM	Type ?? to see choices	Enter the operating system on the RPMS server. The choices are 'UNIX' or 'WIN/NT'.
MUMPS OPERATING SYSTEM	Type ?? to see choices	The choices are MSM or INTERSYSTEMS. Type 'M' or 'I'.
UNIQUE CLINIC	Type ?? to see choices	If there is only one clinic at this facility using the encounter forms enter the name of that clinic. This will prevent the question 'Name of clinic' to be asked during check in.
THIS IS THE DEFAULT CONFIG	YES/NO	In almost all cases, answer 'YES'. Only if there is more than one entry in the configuration file, and the current entry is not the primary one, answer 'NO'.
EDIT DEMOG DURING CKIN	YES/NO	If you are using the PCC+ check in module (not the check in module from the Scheduling Package or ILC billing package), answer 'YES' if you want the check in clerk to be able to update demographic and insurance information.
ALWAYS PRINT HS IN MED REC	YES/NO	Answer 'YES' if you want the health summary to print in medical records instead of the destination clinic.
MONITOR DATA EXTRACTION	YES/NO	Answer 'NO' (Used for diagnostic purposes only).
BYPASS PRINTING	YES/NO	Answer 'NO' (Used for diagnostic purposes only).
GENERIC PROVIDER	Type ?? to see choices	See sections 3.3 and 3.5.2.
DEMO PATIENT	Type ?? to see choices	See section 3.3.
INS INFO AVAILABLE	YES/NO	Answer 'YES' unless your site does not support the INSURER file.
CHRONIC MEDS ONLY	YES/NO	The encounter form can either display all current medications or just the chronic medications. Answer 'YES' to limit the display to chronic medications only.
BACKGROUND MODE	1 or 0	Answer '0' (Used for diagnostic purposes only).
CONFIRM NEW VISIT	YES/NO	Response is site dependent
USE EXPANDED PHARM SIG?	YES/NO	Answer Yes if your pharmacy sig is being cut off.
ASK ABOUT PAGE 11?	YES/NO	Response is site dependent
PATH TO PRINT FOLDER	Free Text	RPMS Server path (be sure to include the terminal 'slash' UNIX: '/usr/pccplus/print/' NT/2000: 'C:\PCCPLUS\print'.
PATH TO PCCS HEADER FILE	Free Text	RPMS Server path (be sure to include the terminal 'slash' UNIX: '/usr/pccplus/templates/' NT/2000: 'C:\PCCPLUS\templates\ See Sec. 3.5.1
PATH TO TEMP FILE	Free Text	RPMS server path (be sure to include the terminal 'slash' UNIX: '/usr/pccplus/temp/' NT/2000: 'C:\PCCPLUS\temp'.

FIELD	DATA TYPE	INSTRUCTIONS
PRINT SERVER 1 IP ADDRESS	Free Text	See Sec 3.1.2.
PRINT SERVER 2 IP ADDRESS	Free Text	See Sec 3.1.2.
TCP SOCKET	Free Text	Always answer '5143'.
PATH TO PREFERENCE FILES	Free Text	RPMS Server path (be sure to include the terminal 'slash' UNIX: '/usr/pccplus/ilc/' NT/2000: 'C:\PCCPLUS'

Figure 6-45: Fields in the VEN EHP CONFIGURATION File

Use the information in the table to configure the file. Start FileMan and follow the sample dialogue shown in Figure 6-46. (The alternate dialogue for RPMS running on UNIX is shown within brackets: {}.)

```
>D P^DI
Select OPTION: 1  ENTER OR EDIT FILE ENTRIES
INPUT TO WHAT FILE: VEN EHP CONFIGURATION//
EDIT WHICH FIELD: ALL// ALL

Select VEN EHP CONFIGURATION NAME: BBS PRIMARY CONFIGURATION
Are you adding BBS PRIMARY CONFIGURATION ' as a new VEN EHP CONFIGURATION
(the 1ST)? Y

CHART NO IS DFN: NO
TYPE: IHS
OPERATING SYSTEM: WIN/NT {or UNIX}
M VENDOR: MSM [or INTERSYSTEMS]
UNIQUE CLINIC: {Leave blank}
THIS IS THE DEFAULT CONFIG: YES
EDIT DEMOG DURING CKIN: YES
ASK TO PULL CHART: YES
ALWAYS PRINT HS IN MED REC: NO
MONITOR DATA EXTRACTION: NO
BYPASS PRINTING: YES
NAME OF LOCAL GENERIC PROVIDER: BBC,GENERIC PROVIDER
DEMO PATIENT: DEMO,PATIENT
INS INFO AVAILABLE: YES
CHRONIC MEDS ONLY: YES
BACKGROUND MODE: 0
CONFIRM NEW VISIT? <RET>
USE EXPANDED PHARM SIG? YES
ASK ABOUT PAGE 11? <RET>
PATH TO PRINT FOLDER: C:\PCCPLUS\PRINT\ {or /usr/pccplus/print/}
PATH TO PCCS HEADER FILE: C:\PCCPLUS\TEMPLATES\ {or /usr/pccplus/templates/}
PATH TO TEMP FILE: C:\PCCPLUS\TEMP\ {or /usr/pccplus/temp/}
PRINT SERVER 1 IP ADDRESS: 161.223.000.000 (See section 3.2.1.4)
PRINT SERVER 2 IP ADDRESS: 161.223.000.001 (See section 3.2.1.4)
TCP SOCKET: 5143
PATH TO PREFERENCE FILES: C:\PCCPLUS\ {or /usr/pccplus/}
```

Figure 6-46: Configuration Dialogue For RPMS Running On The Windows Operating System

The following table (Figure 6-47) summarizes the recommended paths that must be defined in the VEN EHP CONFIGURATION file.

VEN EHP CONFIGURATION FIELD	UNIX	NT
--------------------------------	------	----

PATH TO PRINT FOLDER	/usr/pccplus/print/	C:\PCCPLUS\PRINT\
PATH TO PCCS HEADER FILE	/usr/pccplus/templates/	C:\PCCPLUS\TEMPLATES\
PATH TO TEMP FILE	/usr/pccplus/temp/	C:\PCCPLUS\TEMP\
PATH TO USER PREFERNCES	/usr/pccplus/codes/ or /usr/spool/uucppublic/	C:\PCCPLUS\CODES\

Figure 6-47: Recommended Paths In The VEN EHP CONFIGURATION File

6.5.5 Add/Edit Encounter Forms (Templates)

In the initial installation, there must be at least one encounter form template registered on the RPMS server.

During the initial release of PCC+, some users reported difficulty synchronizing encounter form templates on the print servers and the template configuration file (VEN EHP EF TEMPLATES) on the RPMS server. Other users had problems with template validity and sharing. To prevent these problems, PCC+ now requires template descriptor files; i.e., each template should now be accompanied by a companion metafile that defines the contents of its associated template. These descriptor files are used by PCC+ to automatically validate and synchronize all templates registered on the RPMS and print servers.

There are three steps to adding a template:

1. Creating the Descriptor File (section 6.5.5.1)
2. Checking the Descriptor File (section 6.5.5.2)
3. Validating the Template (section 6.5.5.3)

6.5.5.1 Creating the Descriptor File

A new utility, the Descriptor File Generator (DFG), is used to create each descriptor file. The DFG is actually a special Word-based data input form with built in macros and pre-defined fields. Whenever a new template is developed or imported, the site manager should call up the DFG and generate a companion descriptor file. The whole process can be completed in three easy steps.

1. Open the form
2. Complete the form and submit the information
3. Check the descriptor file



Figure 6-48: Word Warning Message

You must click the Enable Macros button in the middle of the pop-up screen. If this warning message does not appear, you probably need to reset the Word macro security level to medium.

Complete The Form And Submit The Information

A form enables users to tab through the document and enter information into specified fields. Only fields can be edited by the user. The rest of the document is locked.

The user should tab or click through the document filling in each field. When all fields are completed, click the submit button. The template will be analyzed and a companion descriptor form will be created in the templates folder. This process may take several minutes.

In the following example (Figure 6-49), the DFG is used to create a descriptor file for the template “wic_template.doc” used in the Crow walk-in clinic.

Figure 6-49: PCC+ Template Description Form, Top View Only

6.5.5.2 Check the Descriptor File

A message will pop up stating that the descriptor form has been successfully generated. It is always a good idea to confirm this. Look in the folder c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\. Find the template “{xxx}_template.doc and its companion descriptor file {xxx}_template_info.doc. If

you open the descriptor file, you will see a tab delimited string that contains the information you entered using the DFG as well as the names of every field imbedded in the template. The text string is “readable” by certain PCC+ utilities (Figure 6-50).

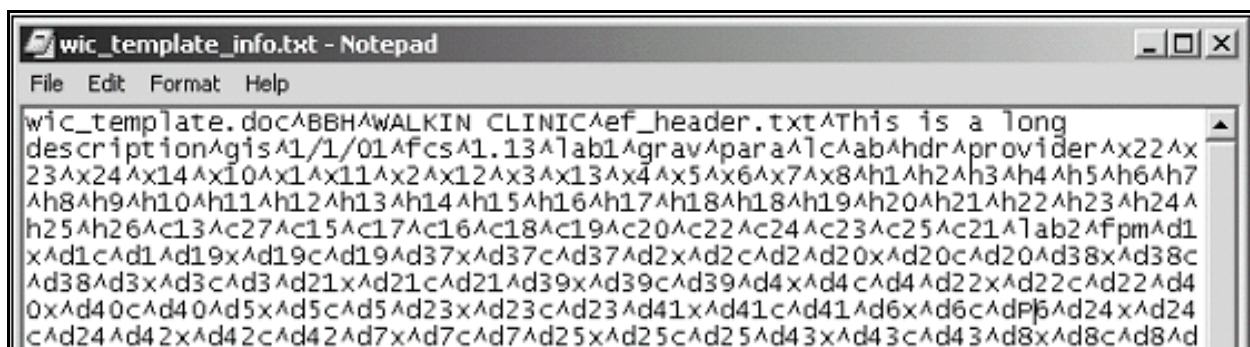


Figure 6-50: Checking the Descriptor File

6.5.5.3 Validate the Template

Once template descriptor files have been created, a new PCC+ option called the Template Validator Utility (TVU) can be used to automatically analyze, validate, document, and synchronize all templates. To access this option:

1. Type AEEF (Add/edit encounter form utility) on the PCC+ installation menu.

Note: The TVU replaces a more primitive utility previously associated with this menu option.

2. Type the name of the template file on the print server. The report will appear (Figure 6-51).

```

ILC ENC FORM/HLTH SUMMARY V1.1:  Installation Utilities
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----

INS      Installation Utilities ...
MGR      Manager's Menu for Encounter Forms ...
PRNT     Print Forms ...
Select New Encounter Form Option:  INS

AEEF     Add/edit encounter form
AEPG     Add/edit print group
VEGD     View EF genl. descriptions
VETD     EF tech description
VPG      List print groups
CHK      CHECK EHP ENVIRONMENT
HS       Synchronize header files
PGS      Synchronize print groups
TS       Synchronize templates

Select Installation Utilities Option:  AEEF

Enter the file name of the template you want to validate =>

```

```

Template file name: wic_template.doc
One moment please...

Template: wic_template.doc           Header file: ef_header.txt
Descriptive name: BBH WALKIN CLINIC

Description: This is a template for a general medical clinic
Created by: GIS                      Created on: 8/1
Cr

Field  Description                                # on this form  Max allowed on this
form
-----
a      Allergies                                  5              5
d      ICD Preferences                            54             60
e      Exams                                      10             20
i      Immunizations                             10             10
l      Lab tests                                  20             20
mm     Rx Medication                             15             15
p      Active problems / Recent POVs              20             20
r      Imaging stuides                            15             25
s      Injections                                 13             15
t      Treatments                                 15             20
x      Review of systems                          16             50
y      Patient education topics                   10             20
z

..... WARNINGS .....
Field 114 (Rx Sig) is missing
Fi

Wa

File updated!

```

Figure 6-51: Template Validation Report

If you type **YES** at the “Want to update the template configuration file on the RPMS server? YES//” prompt, the VEN EHP EF TEMPLATE file will automatically be updated.

The TVU is programmed to recognize and report many kinds of problems including:

- Duplicate missing or invalid template names
- Duplicate, missing or invalid bar code characters
- Missing or invalid templates and companion files
- Lack of synchrony between print servers
- Lack of synchrony between print server and RPMS server
- Invalid, missing, transposed fields

6.5.6 Add/Edit PCC+ Clinics

In the initial installation, there must be at least four PCC+ clinics registered on the RPMS server:

- medical records
- telephone triage
- chart review
- whatever clinics actually will be using the application

See Figure 6-52 for guidance on adding a clinic through the updated clinic utility. It enables you to set default values for providers, encounter forms, health summary types, print groups, etc.

Note: The medical records department should be flagged as an inactive location, so that it cannot be inadvertently selected as a destination during the check in process.

```
ILC ENC FORM/HLTH SUMMARY V1.1:  Installation Utilities
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----
```

```
INS      Installation Utilities ...
MGR      Manager's Menu for Encounter Forms ...
PRNT     Print Forms ...
```

Select New Encounter Form Option: **MGR**

```
PRNT     Print Forms ...
MON      Monitor Print Deamon
GO       Start Print Deamon
STOP     Stop the Print Deamon
ICD      Import ICD Preferences from Excel
EXTR     Extract Preferences from PCC Database
SYS      Edit Orderables
QUE      Monitor the Check-In Queue
CADD     Add a PCC+ clinic
CDEL     Delete a clinic
CLON     Clone a set of ICD preferences
CORD     Clone Orderable Set
DICD     Delete a users ICD preferences
DORD     Delete an Orderable Set
EDI      Edit ICD Preferences
```

Select Manager's Menu for Encounter Forms Option: **CADD**

```
*****  ADD / EDIT A PCC+ CLINIC  *****
```

To add a new clinic, answer the following questions
At any time, you may enter '??' to see the choices

<p>Enter the name of the new clinic. It should be in the format:</p> <p>{SITE} - {CLINIC} e.g., ANMC - PEDIATRICS or CROW - DENTAL</p> <p>Clinic name: CROW - ORTHO</p> <p>Are you adding 'CROW - ORTHO' as a new VEN EHP CLINIC (the 8TH)? Y (Yes)</p>
<p>Enter the name of the DEPARTMENT (CLINIC STOP) associated with this clinic</p> <p>DEPARTMENT: ORTHOPEDIC 19</p> <p>Enter the name of this clinic's DEFA DEFAULT ENCOUNTER FORM: CROW ORTHO</p> <p>Enter the name of this clinic's DEFAULT DE</p> <p>Enter the name of this clinic's DEFA DE</p> <p>Enter the name of this clinic's HEALTH SUMMAR HE</p> <p>Enter the name of this clinic's EN EF</p> <p>Does this clinic ever require an outguide request during check-in? Yes// YES</p>

Figure 6-52: Adding a Clinic

Here are some tips on how to complete the dialogue shown in Figure 6-52.

- When naming the clinic, use the format {site} – {department}; e.g., CROW – WALK-IN. This exact name will appear at the top of the encounter form in the “hdr” field.
- The clinic stop must come from the PCC+ standard list of clinics. This information is used when the visit is created.
- The name of the default Encounter Form appears on the check-in menu after the clinic has been selected.
- The name of the default health summary appears on the check-in menu after the clinic has been selected.
- The name of the default provider appears on the check-in menu after the clinic has been selected. This provider “owns” the default set of user preferences for the designated clinic.
- The health summary print group determines where the health summary will be printed for the designated clinic.
- The encounter form print group determines where the Encounter Form will be printed for the designated clinic.

If you want the outguide question to appear during the check-in process for the designated clinic, type YES at the last question. The information entered will be used to populate the VEN EHP CLINIC file and the VEN QUEUE TYPE file.

6.6 Define User and Site Preferences

One of the key advantages of the new encounter form is that it can be customized to reflect individual information and to incorporate the local clinical needs. Individual providers can specify up to 60 of their preferred diagnoses on a single form. In addition, a provider can develop preference lists for up to eight different demographic categories: infants, children, teen females, teen males, adult females, adult males, senior females, and senior males. This means that each provider can specify up to 480 diagnoses and associated ICD9 codes.

The site manager can also specify orderables. An orderable is something that can be ordered by a provider and it is usually associated with a CPT code. There are eight different classes of orders: exams, treatments, injections, radiology exams, injections, supplies, patient education topics, and immunizations that can be specified across four demographic categories: infants, children, adult females, and adult males. In Version 1.2, multiple order sets can be created, and a specific order set can be assigned to a specific encounter form.

Note that customized lists of diagnoses are provider-specific and customized lists of orderables are site-specific. Different sets of utilities are used to maintain the lists of preferred diagnoses and preferred orderables. A complete discussion of methods for defining and editing preferences can be found in the users guide.

Note: The use of the user and site preferences features is optional.

6.7 Test, Start, and Troubleshoot

At this point, both the RPMS server and the print server should be fully installed and configured. Do one final series of tests to make sure that all components are functioning properly. If you are upgrading from PCC+ version 1.1, you may skip this section.

6.7.1 Validate PCC+

Make sure that both print servers are running and registered on the LAN. On each print server, check the services to be sure that the ILC Print Service is active. Then, run the PCC+ comprehensive system checker: D ^VENPCCMC. This utility will perform a complete checkup on all aspects of PCC+ (on all three servers), report problems and suggest solutions. DO NOT run PCC+ until you have used this utility.

6.7.2 Test PCC+ Check In Process

1. Block the printing process. To do this, run FileMan and edit the file VEN EHP CONFIGURATION (Figure 6-53).

```
>D P^DI
Select OPTION:      ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: VEN EHP CONFIGURATION// VEN EHP CONFIGURATION
EDIT WHICH FIELD:  ALL// BYPASS PRINTING
THEN EDIT FIELD:

Select VEN EHP CONFIGURATION NAME:      BBC PRIMARY CONFIGURATION
BYPASS PRINTING: YES// NO NO
```

Figure 6-53: Block The Printing Process

2. Manually stop the Print Daemon. To do this, type D STOP^VENPCC at the MUMPS prompt.
3. Return to the M prompt and run NOTASK^VENPCC. This will take you through a demo check-in process (Figure 6-54).

```
>D NOTASK^VENPCC
Welcome to the PATIENT CHECK-IN MODULE....

Patient:      WATERMAN,RAE                F 11-10-60 000120001      SE 100003
Update demographics/insurance info? Yes// N (No)
Clinic:      BBC - WALK IN
Provider for this visit: BBC,GENERIC PROVIDER//
Encounter form: BBC MEDICAL//
Health summary type: ADULT REGULAR//
Print outguide/Pull chart? Yes// YES (Yes)
There are now 3 documents in the print queue
No visit created
Submitting request For Encounter form and Health Summary...

Encounter form sent to print queue
OutGuide sent to print queue
Health summary sent to print queue

Patient:
```

Figure 6-54: Demo Check in Process

4. Select a patient who is a “frequent flier” at your facility. No visit will be created during this test. Refer to Figure 6-54 as an example (some of the values will be different at your facility). Refer to the users guide for additional assistance.
5. Check the directory /usr/pccplus/print/ (or C:\PCCPLUS\print\ on Windows machines) for the three temporary data files created during this process. The file names begin with the letter “e”, “h”, or “g” followed by a number followed by “.txt”; e.g., “e12765.txt”. Feel free to examine the contents of the files. They contain the raw data the Word’s mail merge process inserts into the documents. If

these files are not present, or you encounter an error during the data extraction process, call tech support for assistance.

6. Return to FileMan and the VEN EHP CONFIGURATION file. Set the parameter BYPASS PRINTING back to NO. Failing to complete this step will keep PCC+ from functioning properly.

6.7.3 Check the Print Server

Note: This step is optional and should only be used if a form won't print properly.

These steps explain how to check the document generation process by manually running mail merge.

6.7.3.1 Create Data Files For Test Purposes

1. Copy two of the files created earlier (the files that begin with “e” and “h”) to a floppy. Move them to the print server directory c:\ProgramFiles\ILC\ILC Forms Print Service\Print\.
2. Start Word and open the newly installed text file that begins with “e”.
3. Save the file as a Word document with the name efdata.doc (Figure 6-55). Click the File option and click the Save As option.

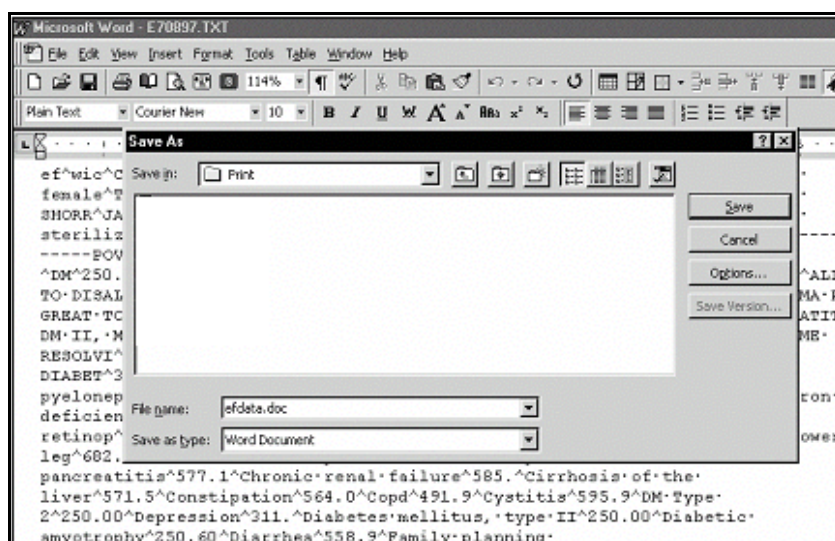


Figure 6-55: Check The Print Server, Step 3

4. Open the newly installed file that begins with “h” and save it as a Word document called hsdata.doc.

6.7.3.2 Manually Run the Mail Merge

1. Open c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\wic_template.doc. Click the Tools option and a drop down menu will appear.
2. Click the Mail Merge option. The Mail Merge Helper window will open. Click the Create option. A dropdown menu will appear.
3. Click the Forms Letters option. A dialog box will open.
4. Click the Active Window option. The Mail Merge Helper window will return to the front.

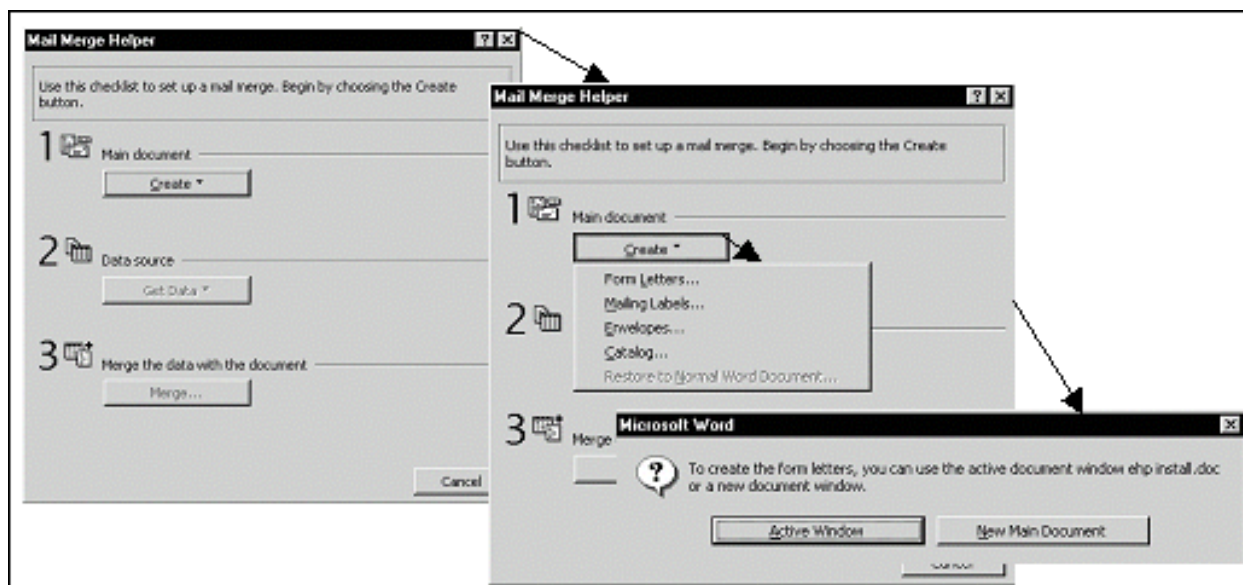


Figure 6-56: Manually Running The Mail Merge Process Steps 2 – 4

5. Click the Get Data option. A dropdown menu will appear. Click the Header Options option. A dialog box will open (Figure 6-57).
6. Click the Open option. The Open Header Source Window will open. Select the All Files option from the “Files of type:” field (Figure 6-57).
7. Navigate to c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\ and double click the file ef_header.txt. The Mail Merge Helper window will return to the front.

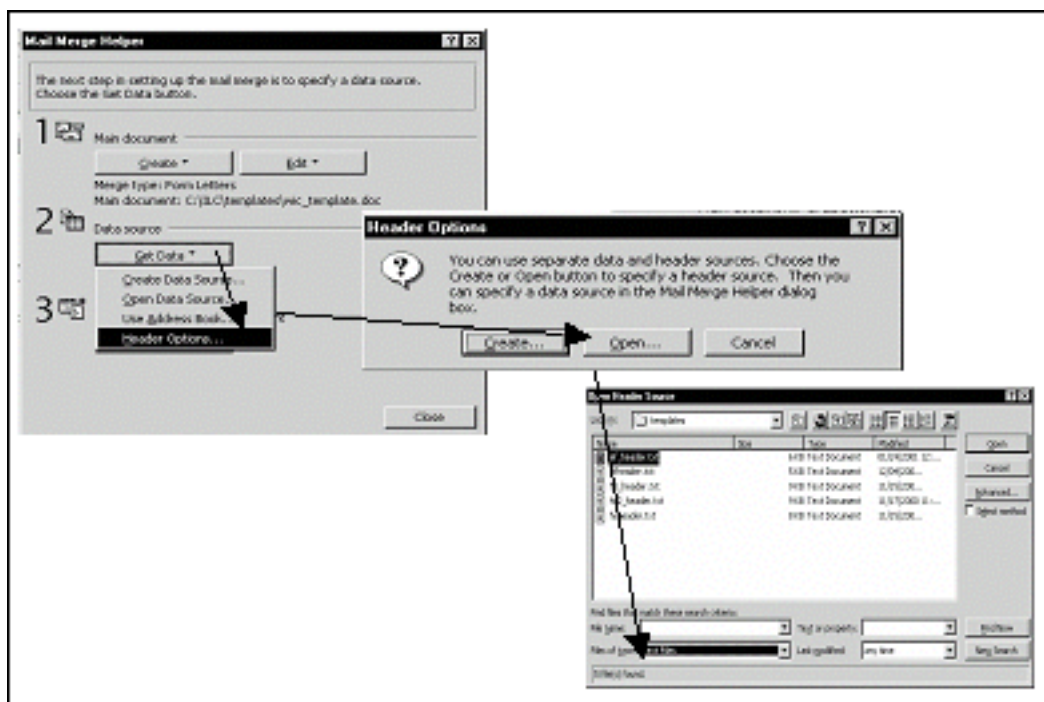


Figure 6-57: Manually Running The Mail Merge Process Steps 5-7

8. Click the Get Data option again. A dropdown menu will appear (Figure 6-58). Click the Open Data Source option. The Open Data Source window will open.
9. Select the Word Documents option from the “Files of type:” field. Navigate to Program files\ilc\ilc forms print service\print and double click the file efdata.doc. The Header Record Delimiters window will open.
10. Select the up arrow in the “Field delimiter:” field. Select the enter option in the Record delimiter field. The Mail Merge Helper window will return to the front.
11. Click the Close option to close the Mail Merge Helper window.

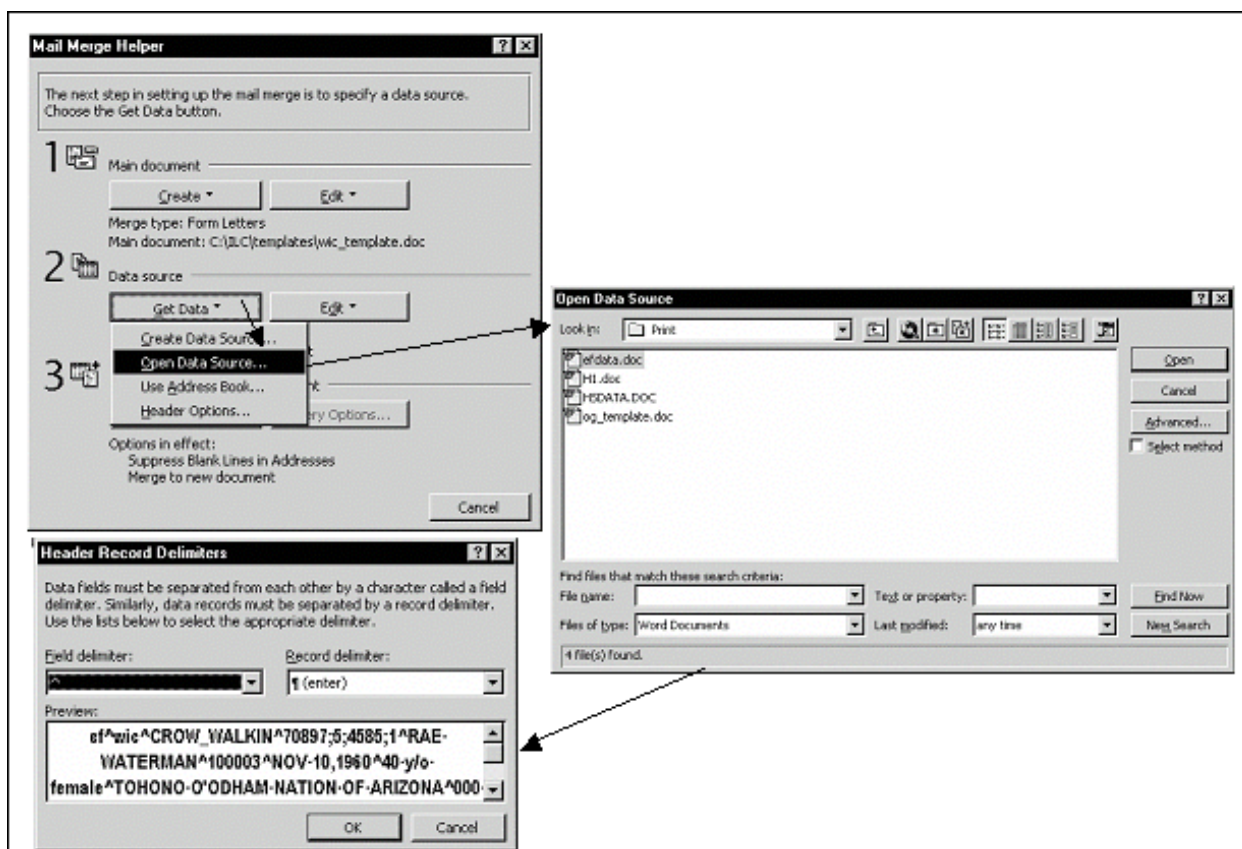


Figure 6-58: Manually Running The Mail Merge Process Steps 8-11

12. Click the mail merge icon on the Mail Merge toolbar and Word will populate the form. The Mail Merge toolbar should be present and the Insert Merge Field drop down menu should have over a thousand fields in it.

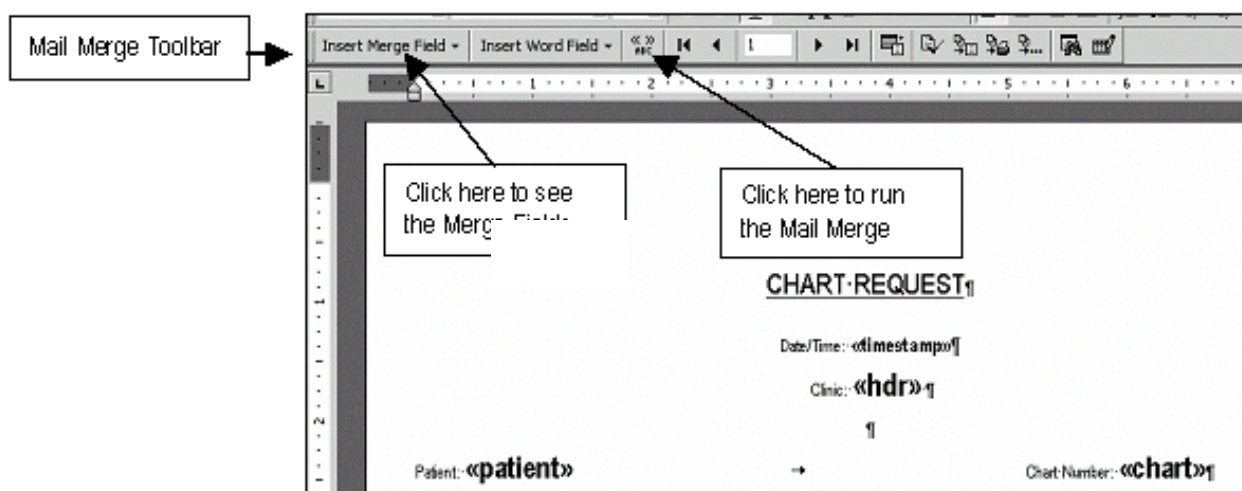


Figure 6-59: Manually Running The Mail Merge Process Step 12

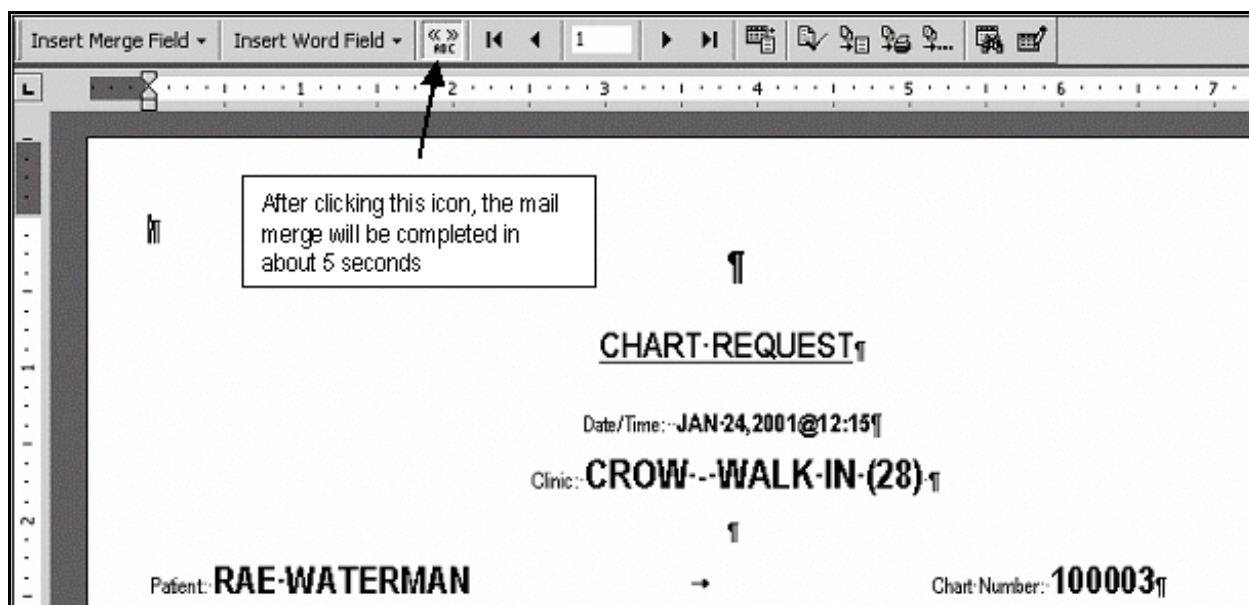


Figure 6-60: Sample of Final Mail Merged Document

13. After you have reviewed the document, close it, but do not save your changes! A template must be stored as an ordinary document (not a merged document) or the print service will crash with an error.

Warning: Never save a template as a mail merge document.

Never save a template as a merged document. It should always be saved as a normal Word document, without being attached to a header file or data source. If a template is inadvertently saved as a mail merge document, here is how to return it to a “normal” state:

1. Open the document.
2. Click the Tools option. Click the Mail Merge option. The Mail Merge Helper Window will open.
3. Click the Create button. Click Restore to Normal Word Document option from the drop down list.

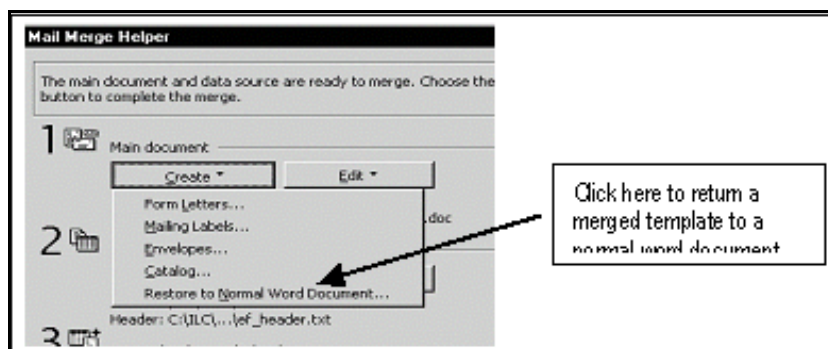


Figure 6-61: Restore Template to Normal Word Document

Manually Run the Mail Merge Process to Check the Health Summary Template

1. Open c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\hs2_template.doc.
2. Click the Tools menu option. A drop down menu will appear. Click the Mail Merge option. The Mail Merge Helper window will open.
3. Click the Create button. A dropdown menu will appear (Figure 6-62). Click the Forms Letters option. A dialog box will open.
4. Click the Active Window option. The Mail Merge Helper window will return to the front.

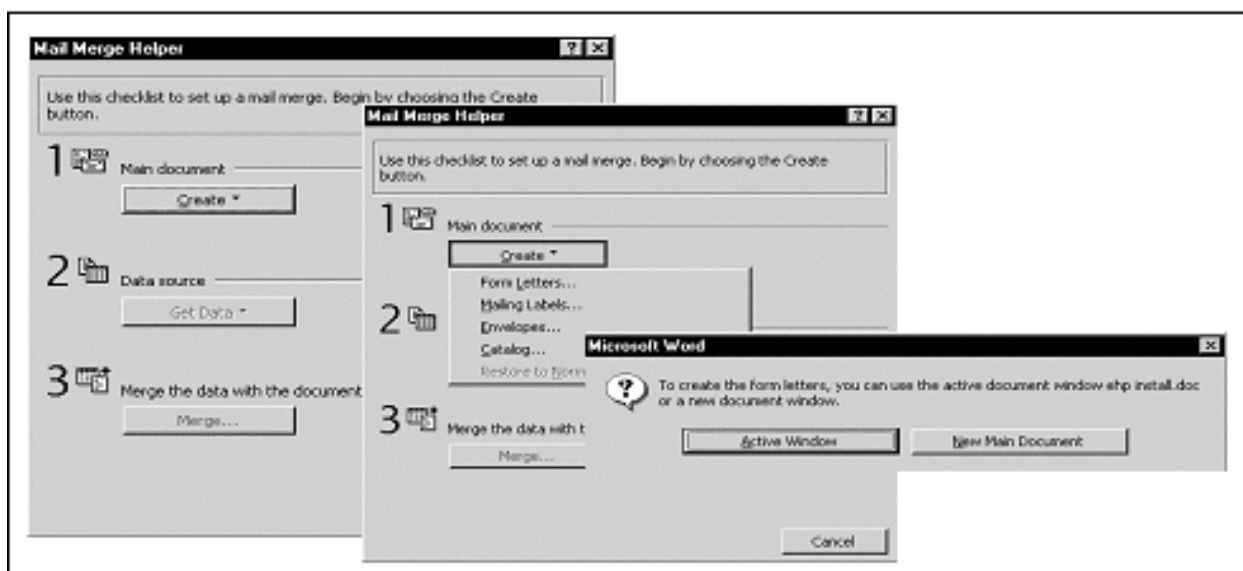


Figure 6-62: Check the Health Summary Template, Steps 2-4

5. Click the Get Data option. A dropdown menu will appear (Figure 6-63). Click the Header Options option. A dialog box will open.
6. Click the Open button. The Open Header Source Window will open.
7. Select the Text Files option from the Files of type: field. Navigate to c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\ and double click the file hs2_header.txt. The Mail Merge Helper window will return to the front.

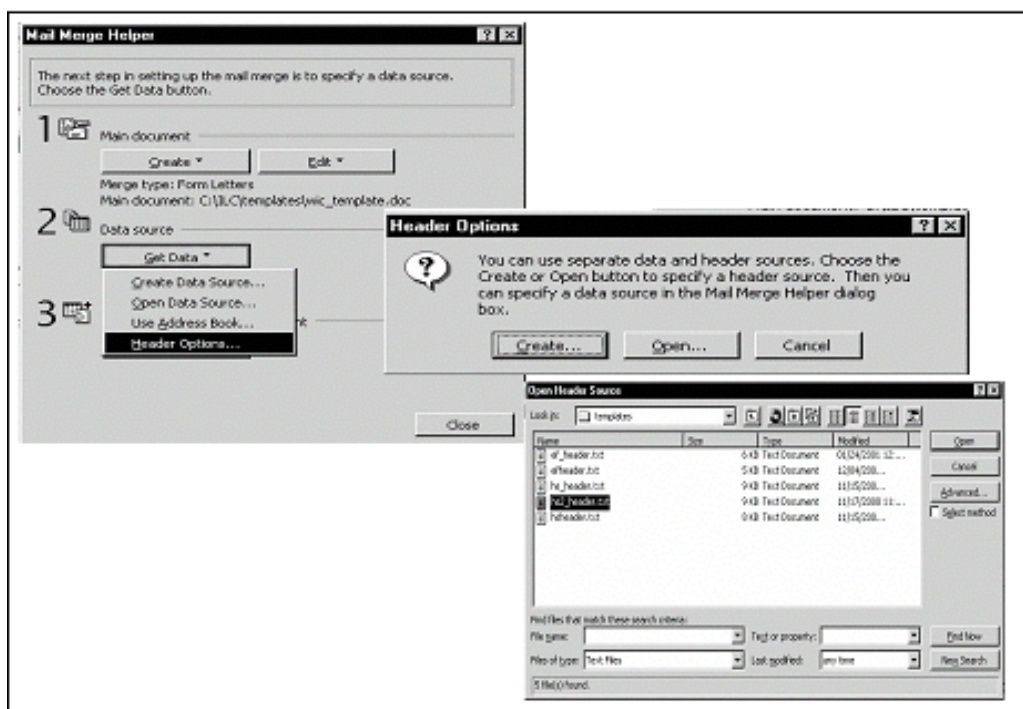


Figure 6-63: Check the Health Summary Template, Steps 5-7

8. Click the Get Data button again. A dropdown menu will appear (Figure 6-64). Click the Open Data Source option. The Open Data Source window will open.
9. Select the Word Documents option from the Files of type: field. Navigate to Program files\ilc\ilc forms print service\print and double click the file hsdata.doc. The Header Record Delimiters window will open.
10. Select the up-hat (^) option in the Field delimiter: field. Select the Enter option in the Record delimiter field. The Mail Merge Helper window will return to the front.
11. Click the Close button to close the Mail Merge Helper window.

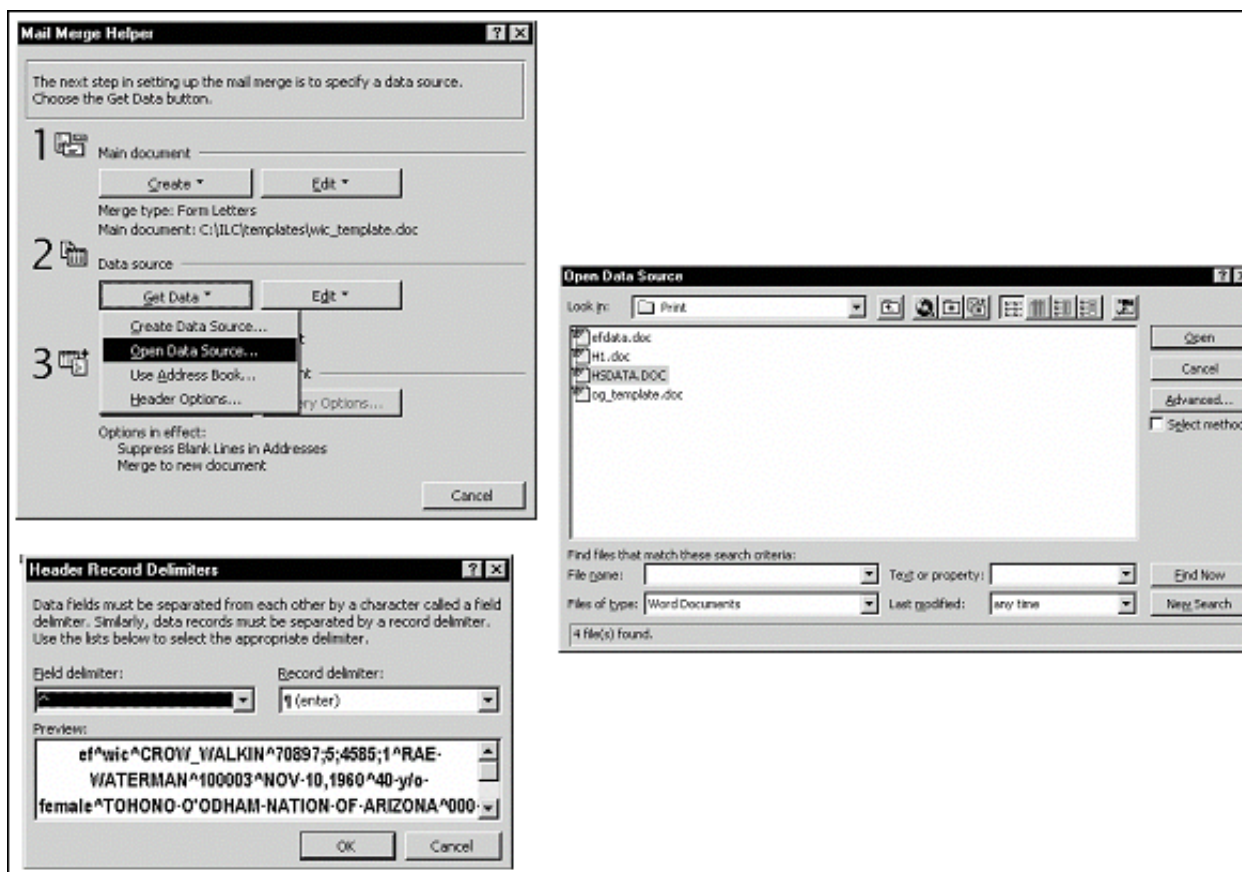


Figure 6-64: Check the Health Summary Template, Steps 8-11

12. Click the mail merge icon from the Mail Merge Toolbar and Word will populate the form. The Mail Merge toolbar should be present and the Insert Merge Field drop down menu should have over a thousand fields in it. Click the mail merge option and Word will populate the form (Figure 6-65).

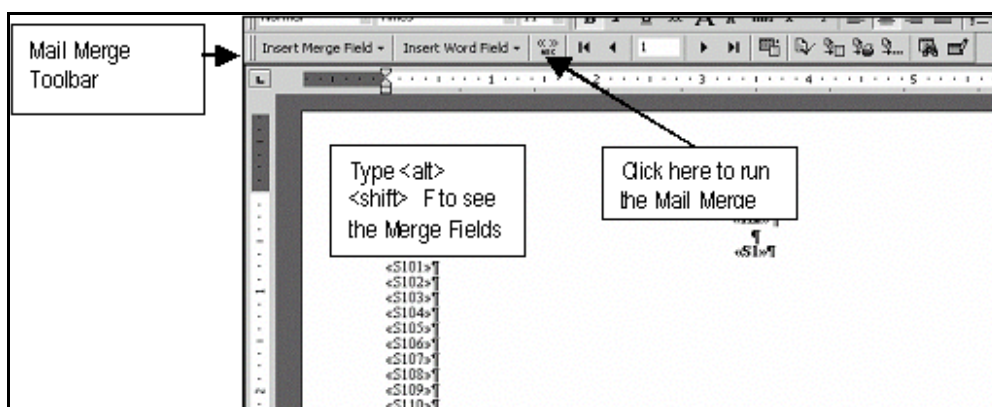


Figure 6-65: Check the Health Summary Template, Step 12

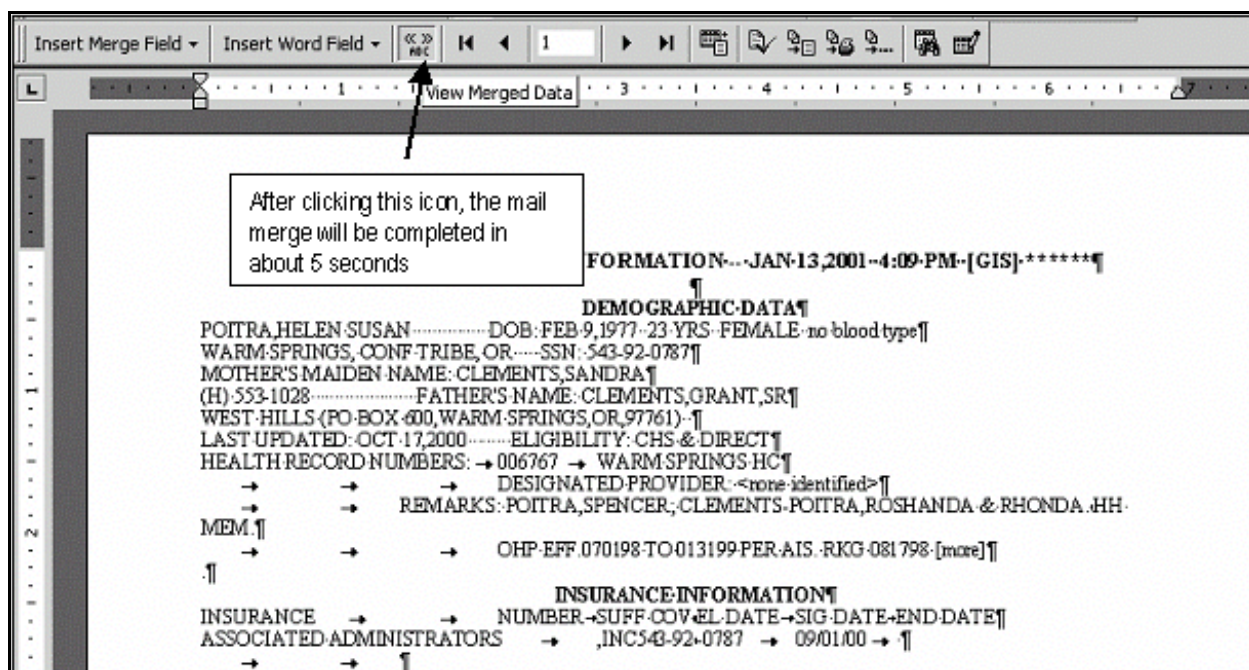


Figure 6-66: Sample of Final Mail Merged Health Summary

6.7.4 Test the Print Daemon

At this point you should have three files in the PRINT folder on the RPMS server. The final test will be to determine if you can pass these files over the LAN to the PCC+ Print Service and generate a document. At the mumps prompt, type D ^VENPCCMX. This will activate both the PCC+ Print Daemon and the PCC+ monitor. These various stages of the PCC+ process will be reported back to you and with any luck, the test documents will print on the designated printer.

6.7.5 Going Live

After completing all tests, the system is now ready to “go live”.

1. Assign the VENZPRINT key to all check in clerks and familiarize them with the Check-in Menu. As soon as the clerks start checking patients in, the system will start automatically.
2. Run ^VENPCCMX (or select the VEN MONITOR PRINT DEAMON option on the Manager's Menu) to continuously monitor the progress of the system. The Print Daemon cycles every five seconds, and VENPCCMX keeps track of those cycles.
3. Press the Return key to exit VENPCCMX. The print daemon will continue to run in the background when venpccmx is exited, unless the user exits by typing an up arrow before pressing the return key. This will stop the print daemon until the next patient is checked in or the VENPCCMX is run again.

4. Monitor the VEN EHP ERROR LOG file for errors.
5. Run the list OPTION on the PCC+ print menu to see who has checked in.

6.7.6 Final Suggestions

Take the time to walk each check-in clerk through the check-in dialogue. Also, make sure that every provider who uses the new encounter form has had a definitive orientation. Be there to review completed encounter forms with the providers on the day you go live. Make sure, at the very least, that users are familiar with the users guide. If the clerks and providers do not receive adequate training, problems are more likely to appear.

7.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the ITSC Help Desk by:

Phone: (505) 248-4371 or
(888) 830-7280

Fax: (505) 248-4199

Web: <http://www.rpms.ihs.gov/TechSupp.asp>

Email: RPMSHelp@mail.ihs.gov